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GENERAL SUMMARY

IN the second quarter of 1950, the volume of European exports continued to expand but at a lower rate than in the previous six months. In comparison with the position before devaluation, there has been a definite expansion of the volume of Europe's exports to overseas in relation to imports. This has, however, been roughly offset by the deterioration, of the order of 10 to 15 per cent, in Europe's terms of trade with overseas countries brought about by devaluation. The marked improvement in Europe's gold and dollar holdings is therefore to be explained not primarily by changes in the balance on merchandise trade but rather by shifts in the pattern of trade and by an improvement in service and capital transactions.

Industrial production continued to increase during the quarter, in both eastern and western Europe, at much the same rate as in the preceding quarters. Building activity was, in most instances, higher than a year ago. The most conspicuous change in the second quarter was in western Germany, where the employment situation improved considerably, owing to public financing of building and a rapid increase in industrial exports.

According to preliminary estimates, the total grain harvest in Europe in 1950 is of about the same magnitude as in 1949, while output of potatoes and sugar is considerably higher.

With the deterioration of international relations after the outbreak of hostilities in Korea, new forces have been brought to bear on European production and trade. Apart from the worsening of its terms of trade inherent in devaluation, Europe is now faced with a further rise in import prices and with the prospect of increased expenditure on armaments. In addition to the general pressure on resources and the threat to monetary equilibrium which these developments may impose, there is some indication that shortages may reappear in coal and perhaps other basic commodities.

The Level of Trade

The exports of European countries, in their trade both with one another and with overseas countries, rose to new levels in the second quarter of 1950, but nevertheless failed to continue the rate of expansion which began in the fourth quarter of last year. That expansion seems to have been attributable to factors still operating, but apparently with less effect on the over-all volume of Europe's trade than before. These included not only the currency devaluations of last September, but also measures for the liberalization of trade in western Europe, the marked recovery in the production and exports of western Germany,

and the upturn in the business cycle in the United States. In the light of this relatively favourable setting for trade expansion, the export levels achieved in the second quarter appear rather moderate, particularly when allowance is made for seasonal factors normally tending to increase production and trade after the end of the winter months. Meanwhile, new and perhaps still more powerful influences have been brought to bear on European production and trade by the outbreak of hostilities in Korea, the net effect of which cannot be foreseen, and the second quarter of the year may mark the end of a particular stage in Europe's post-war recovery.

Table 1

VOLUME OF EXPORTS OF TEN EUROPEAN COUNTRIES AND THE UNITED STATES
BY AREA OF DESTINATION

Index numbers - October 1948 - March 1949 = 100

Area of origin	Ten European countries ^a				United States			
	1949		1950		1949		1950	
	April-Sept.	Fourth quarter	First quarter	Second quarter	April-Sept.	Fourth quarter	First quarter	Second quarter
Europe	106	126	133	139	102	91	81	81
United States	72	120	116	122	—	—	—	—
Other countries of the Western Hemisphere	84	114	110	111	97	91	85	101
Rest of world	103	101	107	110	106	94	80	78
Total exports	101	115	121	125	100	89	81	86

Sources: The figures have been taken from national statistics.

NOTE. — It has been assumed that changes in the export prices of each of the countries included in the table were identical for each of the areas of destination.

^a Belgium-Luxembourg, Denmark, France, western zones of Germany, Italy, the Netherlands, Norway, Sweden, Switzerland, United Kingdom.

From the data in Table XVIII of the Statistical Appendix,¹ which covers the trade of ten European countries both to one another and to overseas markets, there appears to have been an increase of 3 to 4 per cent in the volume of exports from the first to the second quarter, or not much more than the increase in the same period of 1949 and very much less than in 1948. Most of this increase was in intra-European trade, helping to alleviate in some measure Europe's need for imports from overseas sources. The estimates presented in Table 1 indicate that, while remaining above the relatively low levels of a year ago, exports to Western Hemisphere markets² showed no appreciable expansion since the fourth quarter of 1949, nor was there any substantial improvement in exports to markets outside the Western Hemisphere, taken as a whole.³ In contrast to this situation, it will be noted that the level and movement of exports from the United States differ substantially from those

of Europe. After devaluation, European exports to third markets improved relatively compared with those of the United States, but a notable increase in United States exports to Canada and several of the Latin American countries took place from the first to the second quarter of 1950.

Europe's imports from overseas sources increased slightly from the first to the second quarter, but the over-all volume may be placed at roughly 5 to 10 per cent less than that of a year earlier. This decline was concentrated in imports from the United States. From the data given in Table XVIII, it may be seen that the share of the United States in the overseas imports of ten western European countries has progressively fallen over the past year and was only 22 per cent in the second quarter of 1950, compared with 30 per cent in the same quarter of 1949. The share of Canada also fell from 7 to 5 per cent during this period. The increase in the proportion supplied by other overseas areas was most marked in the case of Latin America, whose share in Europe's overseas imports increased from 11 to 15 per cent; this increase, however, was largely a reflection of the relatively low level of imports received from Latin America in 1949.

For the most part, changes in intra-European trade from the first to the second quarter were small. There was, however, a further substantial rise in exports from western Germany to most European

¹ See the section "European Economic Statistics" below. All tables in that section are indicated by roman numerals.

² The exports to the United States of the ten European countries included in Table 1 have increased between the first and second quarters of 1950. However, according to the United States statistics, the exports of other European countries have decreased by approximately the same amount.

³ The failure of European exports to the Western Hemisphere to show any further over-all expansion reflects in part the decline in French exports to Latin America (as seen in Table XVIII) following the drawing down of the franc balances which Argentina had accumulated during post-war years.

markets, particularly to the Netherlands, whose imports of German goods had already risen sharply in the first quarter of the year. Imports into the United Kingdom from western continental European sources and from Scandinavia also rose in the second quarter.

Trade between eastern and western European countries showed no progress during the quarter. On the contrary, shipments from east to west have continued to decline over the past year, partly because of reduced imports of Polish coal by France and several other western European countries. Shipments of coarse grain by the Soviet Union to the United Kingdom were maintained, however, and, by the end of June, 587,000 tons had been delivered out of the million tons called for by the contract signed

in September 1949. Exports by western Europe to eastern Europe remained at about the first quarter level only because of some rise in west-German exports, those from most other western European countries tending to decline.

Balance of Payments

Some further deterioration in Europe's terms of trade with overseas countries seems to have occurred in the second quarter, continuing the adjustments set in motion by devaluation, although imports of primary goods did not yet reflect the big price increases which came after the middle of the year. As may be seen in Table XVI, the most significant change was the further rise in the British import price index, which, at the end of the first quarter, had risen by

Table 2
BALANCE OF PAYMENTS OF EUROPE AND ITS AFFILIATED CURRENCY AREAS
WITH THE UNITED STATES
Millions of current dollars

Item	Year and quarter	Europe			European dependent overseas territories ^a	Overseas sterling area ^b	Total of areas listed
		United Kingdom	Other European countries	Total Europe			
A. Balance on goods and services . . .	1949-II	-138	-840	-978	-57	-144	-1,179
	1950- I	-58	-455	-513	+15	+44	-454
	II	+31	-423	-392	+5	+51	-336
B. Surplus or deficit on goods and services, private donations and capital movements	1949-II	-154	-798	-952	-57	-115	-1,124
	1950- I	-61	-403	-464	+18	+72	-374
	II	+35	-366	-331	+9	+76	-246
C. Official financing							
United States Government grants and credits	1949-II	+294	+1,046	+1,340	—	—	+1,340
	1950- I	+201	+666	+867	—	+1	+868
	II	+217	+749	+966	—	+1	+967
Foreign dollar balances in the United States ^c	1949-II	+108	+93	+201	+6	-26	+181
	1950- I	-99	-57	-156	-5	-1	-162
	II	-260	-187	-447	-9	-6	-462
Monetary gold movements ^c . . .	1949-II	+162	-45	+117	-5	+57	+169
	1950- I	-80	-48	-128	-1	+2	-127
	II	—	-23	-23	-1	+10	-14
D. Errors, omissions and multilateral settlements ^d	1949-II	-410	-296	-706	+56	+84	-566
	1950- I	+39	-158	-119	-12	-74	-205
	II	+8	-173	-165	+1	-81	-245

Sources: The figures are derived from Table XV in the section "European Economic Statistics."

NOTE. — All signs are reversed as compared with the original source in order to present the data from the standpoint of Europe and other areas specified rather than from that of the United States. For further details, see Table XV and "Notes to the Statistics."

^a Excluding those of the United Kingdom and Spain.

^b Including the dependent overseas territories of the United Kingdom.

^c A plus sign indicates the withdrawal of funds from foreign dollar balances or the sale of gold to the United States; a minus sign indicates the acquisition of such assets.

^d A minus figure in the last three rows represents the excess of (a) estimated dollar funds obtained from the United States (including receipts through drawings on gold and dollar balances) over (b) the estimated amounts required for payments of all types to the United States, the difference indicating the net effect of dollar transfers to other areas and errors and omissions.

15 per cent in terms of sterling since devaluation and rose by a further 4 per cent during the second quarter. Export prices of European countries have edged up more gradually, but still remain in all instances considerably lower in terms of dollars than before devaluation, both in the case of those countries which reduced the value of their currencies to the full extent of the British devaluation and in the case of those countries whose rates were changed only moderately or not at all. The sharpest rise in export prices from the first to the second quarter was in Sweden, largely because of the increased demand in the United States, as well as in European markets, for wood pulp and paper.

As a rough approximation, the deterioration in Europe's overseas terms of trade since the third quarter of 1949 was probably in the order of 10 to 15 per cent by the middle of 1950. The increase in import prices in relation to export prices has thus more or less offset, in terms of dollar values, the relative expansion in the volume of Europe's overseas exports as compared with that of its imports. The balance on merchandise trade account with overseas countries, expressed in current dollar values, has not shown any marked or systematic change since the third quarter of last year, as may be seen from Table XVIII.

Nevertheless, there has been a marked improvement in Europe's dollar accounts with overseas countries, as reflected in the rise of approximately \$1.35 billion in gold and dollar balances of European countries from September 1949 to the middle of 1950, about three-quarters of which was in assets held by the United Kingdom. As shown by Table 2,¹ the improvement in Europe's gold and dollar holdings was considerably greater in the second quarter than it had been in the first quarter of the year. This was not appreciably the result of any further change in merchandise trade with the United States, following the earlier reductions made in European imports from that country. More important contributing factors have been the improvement in the net balance on service transactions, only part of which can be explained by the seasonal rise in American tourist expenditure, and a moderate rise from the first to the second quarter in the amount of United States Government

¹ More detailed statistics of the balance of payments of Europe and other areas with the United States are given in Table XV in the Section "European Economic Statistics".

financing provided to European countries, although this aid was very much reduced from the early 1949 levels.

One of the most striking features of Table 2 is that the United Kingdom, for the first time since the war, shows a small surplus on goods and services account with the United States. Furthermore, the most recent United Kingdom balance-of-payments estimates indicate a reduction of the "dollar area" deficit from \$538 million during the second half of 1949 to \$143 million during the first six months of this year.² This reduction is the combined result of a decline in imports, an expansion of exports and an increase in the net earnings from "invisible" transactions. It is also noteworthy that the overseas sterling area as a whole, formerly a net drawer on the London dollar pool, has become a net contributor during the first half of 1950. The sale to the United Kingdom of gold produced and dollars earned by these countries has contributed to an increase in the British short-term liabilities to sterling area countries, which rose by £200 million during the period.

The data presented indicate that the expansion in European gold and dollar balances since devaluation cannot be fully explained by the improvement in trade and other current account transactions with the United States and by the decrease in European dollar settlements with other areas. A further important element has undoubtedly been the strengthening of confidence in European currencies and the diminution, or perhaps even reversal, of capital flight from Europe.³ This suggests a need for caution in appraising the extent of the improvement in Europe's basic trade position up to the middle of the year.

Industrial Production

In the second quarter, the progress in industrial production in Europe (excluding the Soviet Union) was fully maintained at the rate achieved in preceding quarters. Industrial output was about 3 per cent higher than in the first quarter, and about 10 per cent higher than in the second quarter of 1949.

² The "dollar area" includes the United States, other "American account" countries and Canada. The net surplus with non-dollar countries is \$291 million.

³ This change seems to be reflected in the diminution and reversal of sign of the "errors and omissions" item in the United States balance of payments with the rest of the world. See the *Economic Survey of Europe in 1949*, pp. 124-6. In all further references, this document will be cited as the SURVEY.

The figures for individual countries given in Table 3, as well as those in Table I of the Statistical Appendix, show rather divergent movements. The greatest improvements were in western Germany and Italy, where the increases over the previous quarter were 8 or 9 per cent. In the United Kingdom, the Netherlands and Norway, annual rates of increase generally in the order of from 7 to 10 per cent were maintained. The figures for France, Belgium and Austria, however, are less encouraging. If allowance is made for the effects of industrial disputes on the figures for the first quarter of 1950, there seems to have been no significant improvement in France in the second quarter, when production remained below the level attained a year before. In Belgium the continued depression in the engineering industry offset the

prosperity of the textile industry, where production was maintained at the relatively high level reached at the beginning of the year,¹ and the over-all index of production was somewhat lower than in the second quarter of 1949. In Austria, the moderate rise in industrial production may be largely due to seasonal factors; chemical production hardly increased, and textile production was lower than in the previous two quarters.

Indices of building activity in some countries of western Europe are set out in Table 4. While these are of varying coverage and reliability, they seem to show a fairly general improvement in the first half of

¹ The figure shown in Table IV for textile production in Belgium in the second quarter of 1950 is affected by industrial disputes in June.

Table 3
INDEX NUMBERS OF INDUSTRIAL PRODUCTION

Country	Corresponding quarter previous year = 100						First quarter 1950 = 100	
	1949				1950			
	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter		
Austria	137	133	133	137	134	117	104	
Belgium	108	106	94	99	97	97	99	
Bulgaria	137		138	106	122	123	..	
Czechoslovakia	110	110	107	109	114		..	
Denmark	104	105	108	107	109	113	108	
Finland	105	104	101	107	106	107	103	
France	113	111	107	108	97	97	105	
Germany : western zones . .	171	168	137	129	118	122	108	
Greece	117	125	122	111	119	123	111	
Hungary	127		142	..	147	134	..	
Ireland	106	105	108	110	114	..	..
Italy	106	112	105	104	114	109	109	
Netherlands	115	112	113	113	110	109	103	
Norway	113	104	105	108	108	107	98	
Poland	124		122	..	..	122	..
Spain	97	102	97	112	117	111	104	
Sweden . . . . .	..	..	..	..	104	104	101
United Kingdom	107	107	107	107	109	108	99	
Total of countries listed . .	117	115	111	110	109	110	103	
U.S.S.R.	123	120	117	120	122	121	..	

Sources : The index numbers for each country are derived from the same sources as those in Table I in the section "European Economic Statistics", with the following exceptions : the figures for Hungary and Poland, which were taken from *Statisztaki Szemle* and *Gospodarka Planowa*, respectively, and that for Czechoslovakia in 1950, which was taken from *Rudé Pravo*, 17 September 1950.

Table 4

INDICATORS OF BUILDING ACTIVITY IN THE FIRST HALF OF 1950
Index numbers — corresponding period 1949=100

Country	First quarter	Second quarter	Indicator used
Belgium	110	110	Volume of building activity
Denmark	115	117	Floor-space under construction in urban communities at end of quarter
Finland	114		Cubic space of buildings completed
France	99	98	Volume of building activity and public works
Germany : U.K./U.S. Zone	100	122	Volume of building activity
Netherlands	110	111	Number of dwellings completed
Norway	110	105	Number of building workers employed
Spain	97	110	Number of dwellings completed
Switzerland	119		Number of dwellings completed in 33 towns
United Kingdom	106	105	Volume of building and construction activity

Sources : The figures are derived from the *Monthly Bulletin of Statistics*, United Nations, and national statistics.

1950 compared with the first half of 1949. As in industrial production, the improvement was particularly great in western Germany. In Switzerland, where private industrial construction has been steadily declining since 1947, the rise was mainly due to public financing of housing construction. In France, on the other hand, even the low level of 1949 was not quite reached. Measures have recently been taken to expand credits for house construction in that country, but substantial improvement in the building trade appears to depend on an increase in the labour force rather than on financial conditions.

The index numbers of industrial production in eastern European countries shown in Table 3 are not in all instances strictly comparable with those for western European countries. They can conveniently be considered in the light of the more detailed information on industrial development in eight eastern European countries which is set out in Table 5.

In Hungary and Rumania the gross value of production was over 30 per cent higher in the second quarter of 1950 than in the second quarter of 1949. In the Soviet Union, Poland and Bulgaria, it was about 20 per cent higher ; and only in Yugoslavia, which has met with special difficulties, was the increase less than 10 per cent. Only in the less developed countries—Bulgaria, Rumania and Yugoslavia—did production expand less between 1949 and 1950 than between 1948

and 1949. Part of the explanation may be that these countries have suffered more from difficulties in importing machinery and plant equipment from abroad. The more industrialized countries have been able to produce a larger proportion of their new capital equipment themselves and have had a larger stock of old or reconstructed equipment as a basis for the expansion of production.

Some of the eastern European countries are also encountering increasing difficulties in obtaining adequate supplies of raw materials for their industrial expansion. In Yugoslavia, the financing of imports of raw materials was the chief factor limiting industrial production ; and Hungary's greatly expanded import programme has made necessary a considerable diversion of resources from domestic consumption to export. In Poland, where increased supplies of raw materials are expected to be forthcoming mainly through a development of the basic industries within the country, the production programmes for pig-iron and sulphuric acid have been held up because existing plant has been worked too hard and inadequately maintained, but an improvement is expected soon when new plants are completed.

In most eastern European countries, output has increased much more rapidly in the heavy industries than in the light, although the increase in production of footwear during the past year has been, in general,

Table 5

INDICATORS OF INDUSTRIAL PRODUCTION IN EASTERN EUROPEAN COUNTRIES
IN THE FIRST HALF OF 1950

Index numbers — corresponding period of 1949 = 100

Product	Bulgaria		Czecho- slovakia	Germany: Soviet Zone	Hungary		Poland		Rumania		U.S.S.R.		Yugo- slavia
	First quarter	Second quarter	First half-year	First quarter	First quarter	Second quarter	First quarter	Second quarter	First quarter	Second quarter	First quarter	Second quarter	First half-year
Index of industrial production . .	122	123	114	134	147	134	(116)	122	(135)	(135)	122	121	(107)
Energy													
Coal	104	115	105 ^a	..	120 ^b	118 ^b	109	104	111	108	112	112	107
Crude oil . . . . .	..	..	..	..	103	102	105	113	113	111	116	117	..
Electric power	136	121	110	114	121	117	115	111	109	112	118	115	115
Basic materials													
Pig-iron.	—	—	107 ^c	143	106	115	111	106	121	131	114	122	112
Crude steel	—	—	180	121	119	109	110	109	123	117	119	..	112
Chemicals													
Caustic soda. . . . .	..	..	..	..	..	..	114	117	107 ^d	108 ^d	..	..	..
Nitrogenous fertilizers . . . . .	—	—	..	..	111	128	103	112	..	..	..	..	..
Other fertilizers . . . . .	—	—	..	..	232 ^e	148 ^e	118 ^e	109 ^e	..	..	119 ^f	118 ^f	..
Building materials													
Cement	161	128	107 ^g	123	209	144	101	115	121	117	128	126	114 ^h
Bricks . . . . .	..	..	..	..	..	205	138	144	162	290	..	..	..
Products of engineering industry													
Equipment for iron and steel works . . . . .	—	—	..	..	..	..	..	..	..	..	108	101	..
Metal-cutting machine tools	154	102	124 ^l	119 ^l	125	156	..	109	..	209 ^j	..	..	..
Electric generators and motors	176 ^k	175 ^k	..	176 ^m	..	..	..	..	313	228	135 ^k	119 ^k	..
Tractors.	—	—	..	191	176	182	162	259	226	101	116	..	..
Products of light industries													
Cotton fabrics.	135	118	113 ⁿ	144	108	102	116	115	123	108	110	102	..
Wool fabrics . . . . .	..	133	..	..	108	114	121	114	131	125	107	..	92
Other fabrics . . . . .	..	..	..	..	116 ^o	..	127 ^o	117 ^o	124 ^p	..	132 ^p	..	..
Leather footwear	191	223	104 ^q	131	166	185	148	120	160	117	126	123	107 ^r
Paper.	128	118	105	143	..	131	113	117	107	112	..	..	95

NOTE. — The figures have been taken from national statistics and plan fulfilment reports. Figures in brackets are estimates based on percentage increases given for a number of commodities.

^a Mining.^b Coal and lignite.^c Metallurgy.^d Caustic and calcinated soda.^e Superphosphates.^f Mineral fertilizers.^g Building materials and ceramics.^h Building materials.^l Engineering products.^j Parallel lathes.^k Electric motors only.^l Engineering industry, excluding vehicles.^m Electro-technical products.ⁿ Clothing and textiles.^o Rayon fabrics.^p Silk fabrics.^q Leather and rubber industry.^r Leather and footwear.

high. In the Soviet Union, for example, output in many branches of the engineering industry will be two or three times as great in 1950 as before the war. In the light industries, the progress is much less spectacular; the original plans for 1950 now seem unlikely to be fulfilled, and the output of some products, such as footwear and cotton fabrics, will remain below the pre-war level.

The emphasis in eastern Europe on the expansion of the producers' goods industries has recently been intensified. In Czechoslovakia, the production targets for the power, steel, building materials and heavy engineering industries have been raised by 10 to 15 per cent, and in the textile, leather and rubber industries the production of technical equipment is to be stepped up at the expense of consumers' goods. In Hungary, compared with a year before, the increase in output in the heavy industries in the second quarter averaged about 40 per cent, and in the light industries less than 30 per cent. In Rumania, the contrast was striking: in the light industries, output rose by 8 to 25 per cent during the year, but in the engineering industries it doubled. In Yugoslavia, the shift towards the heavy industries has been possible only at the expense of a fall in the output of several important consumers' goods, such as processed foods, textiles and paper. Only in Poland has expansion been more rapid in the light industries during the last year. In the heavy industries, existing capacity had already been reconstructed and utilized to the full, and new investment had not yet reached the stage of production, whereas in the light industries unused capacity was still available.

Table 6

INDUSTRIAL EMPLOYMENT, PRODUCTIVITY
AND OUTPUT IN FOUR COUNTRIES
OF EASTERN EUROPE

Index numbers — second quarter 1949 = 100

Country	Second quarter 1950		
	Employment	Productivity	Output
Bulgaria	114	108	123
Hungary	115	117	134
Rumania	118	114	135
U.S.S.R.	108	112	121

Sources: The figures are derived from national statistics and plan fulfilment reports.

In the countries of western Europe, the increase in industrial production during the past year was mainly due to higher productivity, since industrial employment rose by only a few per cent. The same is true of Czechoslovakia, but in other eastern European countries, as may be seen from Table 6, the increase in production has arisen almost equally from an increase in productivity and an increase in employment.

Agricultural Production and Trade

The preliminary figures given in Table 7 indicate that the 2 per cent increase in the area under grain crops in Europe in 1950 may be offset by a slight decrease in yields, so that the output both of bread grains and coarse grains is expected to be much the same as in 1949. In comparison with the pre-war average, yields were unchanged or slightly higher, while the sown area and the output remained some 6 to 7 per cent lower.

Table 7

GRAIN HARVEST FOR 1950

*Preliminary estimates for Europe,
excluding Turkey and the U.S.S.R.*

Product	Percentage of 1949	
	Area	Production
<i>Bread grain</i>		
Wheat	105	102
Rye	98	93
Total	103	99
<i>Coarse grain</i>		
Barley	111	107
Oats	98	99
Maize	100	97
Total	102	101
All grains	102	100

Sources: The figures are derived from *Food and Agricultural Statistics*, Food and Agriculture Organization of the United Nations, September 1950.

Weather conditions were very unfavourable in Yugoslavia, where the grain harvest may not exceed 70 per cent of last year's, and in Bulgaria and in Rumania. Elsewhere in southern and south-eastern Europe, the grain harvest was on the whole better than in 1949. In Turkey (figures for which are not included

in the table), the crops show a substantial recovery from the extremely low level of 1949. However, the wheat harvest, although it is expected to rise from 2.5 million tons in 1949 to 4.5 million tons in 1950, will not even at that level have reached its 1948 volume. In Poland, large increases in production of wheat and barley appear to be largely offset by a decrease in the rye crop. In the Soviet Union, the grain harvest is expected to be slightly better than the good harvest of 1949. In France, the wheat harvest will be about 10 per cent smaller than last year, but in most other countries of western Europe and in Scandinavia the results are expected to be about the same as or a little below 1949.

In all countries for which reports are available, the output of potatoes and sugar beet is expected to increase considerably this year. 1949 was a bad year for potatoes, and in France and Poland the increase in the potato harvest this year may be as much as 20 per cent.

The improvement in crop production in 1949 has been reflected in a large decrease in imports of bread grains by European importing countries, as may be seen from Table XIX. Imports from overseas sources were about 30 per cent less in the first half of 1950 than in the first half of 1949. The decline in imports from the United States was particularly heavy. The preliminary harvest estimates for 1950 suggest that this reduction in imports of bread grains from overseas can be maintained.

Imports of coarse grains from the United States have also declined, but have been more than replaced by increased supplies from other sources, including Morocco, Iraq and particularly the Soviet Union. The increased imports of coarse grains, together with a higher European production of feeding-stuffs, have made possible a continued increase in the output of animal products (see Table XII), which in turn has led to an increase in exports from European countries, chiefly to other European markets. At the same time, however, as may be seen from Table 8, exports of fish have fallen sharply. This does not seem to be primarily due either to a larger catch in the importing countries or to a smaller one in the exporting countries, but rather to a decline in demand, notably in Germany, as a result of better supplies of meat. Consequently, a larger proportion of the catch is now being processed into oil or feeding-stuffs.

Table 8

EXPORTS OF ANIMAL PRODUCTS AND FISH
FROM NINETEEN EUROPEAN COUNTRIES

Thousand tons

Product	Second quarter		
	1948	1949	1950
Meat	37	66	104
Butter	34	54	60
Cheese	15	35	41
Eggs	27	45	75
Fish	263	248	138

Sources: The figures are derived from Table XIX in the section "European Economic Statistics".

Production and Trade in Industrial Commodities

Production figures for individual industries and for some of the more important industrial materials are given in summary form in Table 9, while the Statistical Appendix contains more detailed production figures (Tables II to V and VII to XI) and also data on trade in industrial materials (Table XX). While the production of electric power continued to increase at a rapid rate, corresponding fairly closely to that of industrial production as a whole, the output and apparent consumption of coal in Europe increased very little in the first half of 1950 compared with the same period of 1949. Coal production for the six months rose by only some 9 million tons, or about 3 per cent. Offsetting even this moderate increase in supplies, however, was the virtually complete cessation of coal imports from the United States, which had totalled 7.7 million tons in the first six months of 1949, and at the same time the United Kingdom has been able to increase its coal exports to overseas customers. On the other hand, actual as distinguished from apparent consumption was increased by a reduction of 3½ million tons in distributed stocks in the United Kingdom (the only country for which such figures are available) from mid-1949 to mid-1950, and an additional reduction of about 1 million tons in stocks at mines. Moreover, the reduction in apparent consumption of coal was concentrated in France and, to a lesser extent, in Belgium; in both countries, short-time work was introduced in the mines, and production in the second quarter was less than that of a year before. In France, in particular, the decline in apparent consumption (adjusted only for stocks at

Table 9

SUMMARY INDICATORS OF ECONOMIC ACTIVITY IN EUROPE ^a

Item	Corresponding quarter previous year = 100				First quarter 1950 = 100		
	1949				1950		
	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	
General index of industrial production	117	115	111	110	109	110	103
Engineering industries	123	122	118	114	108	110	105
Chemical industries	115	114	107	108	109	112	106
Textile industries	112	116	111	114	114	109	99
Building material industries	109	112	110	111	108	110	113
Coal	109	105	105	110	105	102	95
Electric power	107	106	105	108	112	111	94
Crude steel	126	122	112	108	105	105	101
Motor vehicles :							
Passenger	139	139	150	168	150	150	111
Commercial	131	129	123	115	111	122	112
Cement	115	123	117	122	115	114	130
Cotton yarn	114	115	114	114	116	106	94
Wool yarn	112	113	111	109	113	104	95
Rayon filament yarn and staple fibre	148	139	122	118	118	120	104

Sources : The figures are derived from the same sources as those in Tables I to V and VII to XI in the section "European Economic Statistics", *Monthly Bulletin of Statistics*, United Nations, and national statistics.

^a Excluding the U.S.S.R.

mines) from 33.6 million tons in the first six months of 1949 to only 27.9 million tons in the same period of 1950 seems much greater than the probable decline in actual consumption, even though increased hydro-electric power production may have displaced coal to some extent. The explanation probably lies in a drawing down of distributed stocks, for which no data are available, but which may have been built up to abnormal levels in earlier periods of rising prices and industrial disturbances. It should also be noted that the apparent easing of the supply situation in coal in the first half of the year has since given way to a much tighter position and that supplies of metallurgical grades in particular may become critically short with the rapid expansion in steel orders and production since the middle of the year.

In contrast to the apparent easing of the situation in coal in the earlier part of the year, the consumption of mineral oil continued to rise sharply and seemed to be unaffected by the steep rise in its price relatively to that of coal brought about by currency devaluation. This rise in consumption, as may be seen from Table 10, has been accompanied by an increase in the

proportion imported in the form of crude petroleum. In the second quarter of 1950, imports of crude petroleum were 50 per cent higher than the quarterly average for 1949, while net imports of refined products had fallen.

Table 10
TRADE IN MINERAL OIL
OF EIGHT EUROPEAN COUNTRIES ^a

Year	Crude	Refined		Total (ton for ton)	
		Imports	Exports		
1948	4.0	5.7	0.5	5.2	9.2
1949	6.1	5.1	1.2	3.9	10.0
1950,					
1st quarter	7.2	4.6	1.6	3.0	10.2
2nd quarter	9.0	5.1	2.0	3.1	12.1

Sources : The figures have been taken from national statistics.

^a Belgium-Luxembourg, France, western zones of Germany, Italy, the Netherlands, Sweden, Switzerland, United Kingdom.

The output of crude steel was only 5 per cent higher than in the second quarter of 1949, and the whole of the increase came from western Germany and the United Kingdom. It is also these countries, especially western Germany, which showed the most substantial increases in exports during the first half of the year. In Belgium, Luxembourg, France, and the Saar, output was lower than a year ago. The unused capacity in these countries, together with that in western Germany in excess of the production limit of 11 million tons hitherto maintained, may amount to some 4 to 5 million tons a year, or about 8 per cent of present production in Europe outside the Soviet Union. The technical possibilities of a further increase in production in western Europe on the basis of already existing capacity are therefore considerable.

Although the rate of increase of engineering output was considerably smaller than a year ago, it remained about the same as that for industrial production as a whole. The increase of 10 per cent over the second quarter of 1949 shown in Table 9 gives, however, too favourable a general impression, for it is almost entirely due to two special factors. The first is the sharp rise in output in western Germany; if western Germany is left out, the average increase in the remaining countries was only about 3 per cent. The second is the sharp rise in the output of motor vehicles, which strongly influences the indices. It is very doubtful whether, outside western Germany, the total output of all other branches of the engineering industry was any larger than a year ago.

Textile production and exports were maintained at the high level reached in the first quarter of 1950, as were imports of raw materials for the industry. The importance of the United States as a source of supply of raw cotton has diminished slightly, and there has been a noticeable increase in imports from other smaller suppliers.

The Export Boom in Western Germany

Perhaps the most striking feature of the economic picture in Europe during the first half of 1950 was the remarkable improvement in employment and production in western Germany. This was chiefly due to two factors: first, the putting into operation of the plan for the public financing of building and other investment activity, and, second, the sharp increase in industrial exports.

As may be seen from Table 11, the number of employed rose by 540,000 during the second quarter of 1950, of whom 440,000 went into industry. This increase considerably exceeded the growth in the total labour force, so that the number of unemployed fell by over 300,000. The increase in industrial employment was fairly equally divided between building and manufacturing. The improvement has continued in the third quarter, and at the end of September the number of unemployed was 266,000 less than in June.

Chart 1 presents the movements of industrial production and industrial exports, expressed in 1936 prices, in each half-year since the monetary reform in the summer of 1948. It shows that, while previously

Table 11

EMPLOYMENT AND UNEMPLOYMENT IN THE WESTERN ZONES OF GERMANY

Thousands of persons

Period	Employed			Unemployed	Total labour force		
	Total	of which :					
		In agriculture	In industry, building and handicrafts				
June 1949	13,489	1,271	7,075	1,283	14,772		
December 1949	13,556	1,176	7,253	1,558	15,114		
March 1950	13,307	1,118	7,097	1,852	15,159		
June 1950	13,846	1,141	7,540	1,538	15,384		

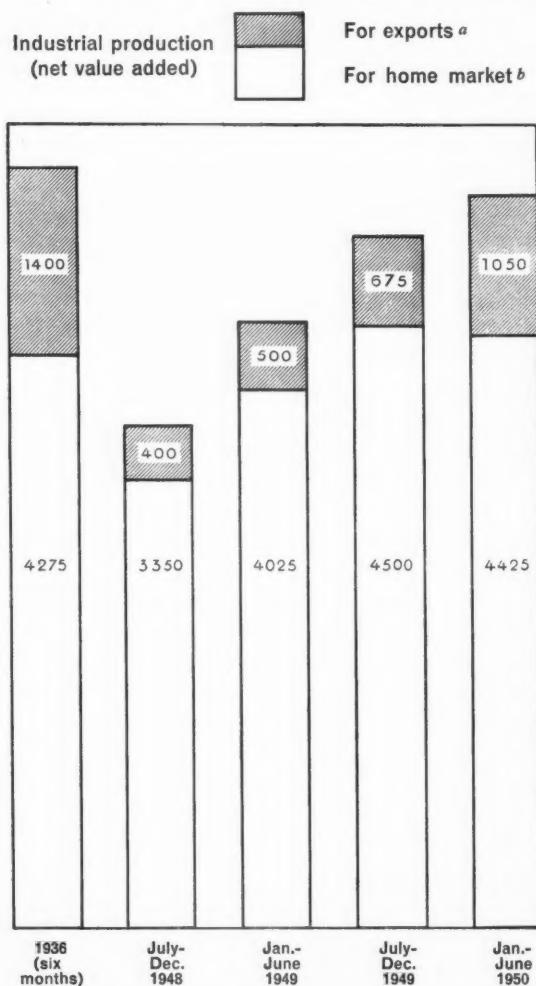
Sources: The figures have been taken from *Wirtschaft und Statistik*, August 1950.

by far the greater part of the rise in industrial production had been absorbed by the home market, in the

Chart 1

INDUSTRIAL PRODUCTION AND INDUSTRIAL EXPORTS OF THE WESTERN ZONES OF GERMANY, 1936 AND 1948 TO 1950

Half-yearly values in million Reichsmarks at 1936 prices



NOTE. — The figures for industrial production (which exclude building, electric power and food, drink and tobacco industries) have been calculated by applying the official indices for the volume of production to the figures for value added in industry in 1936 given in *Wirtschaft und Statistik*, Statistisches Amt des Vereinigten Wirtschaftsgebietes, Stuttgart, July 1950, page 110, and in *Vierteljahrsshefte zur Wirtschaftsforschung*, Deutsches Institut für Wirtschaftsforschung, Berlin, 1948, hft. 1. The export figures are those given in German trade statistics, adjusted as indicated in note *a* and include, for the period before October 1949, an estimated amount for exports from the French Zone. All figures have been rounded to the nearest 25 million Reichsmarks.

a An estimated amount has been deducted for that part of the export value which represents imported materials and value added by other branches of the German economy.

b Including products exported to eastern Germany. For interzonal trade both pre-war and post-war, see this *Bulletin*, Vol. I, No. 3, pages 25 *et seq.*

first half of 1950 it was almost exactly equalled by the rise in the volume of industrial exports. The recent expansion was not, therefore, due to any further increase in domestic demand, nor does home demand for industrial goods appear so far to have received any stimulus in its turn from the export boom. It appears, indeed, that total domestic sales of industrial goods were virtually unchanged during the first half of 1950, since there was no significant increase in imports.

All branches of manufacturing industry have participated in the export boom with the exception of the textile industries, which are also the only important industry group in which production has failed to rise significantly since the last quarter of 1949.

The developments in 1950 have gone a long way towards restoring both the pre-war volume of western Germany's exports and the pre-war pattern of their commodity composition. Table 12 shows that in July and August the volume of exports reached the 1936 level, and that the share of manufactures, though still below pre-war, rose from 45 per cent in the first half of 1949 to over 60 per cent in the first half of 1950. Owing to the sharp fall in timber exports, the share of raw materials is back to about the pre-war figure, but exports of semi-manufactures are still comparatively high, mainly owing to large shipments of cement and of scrap and other waste metal.

Although there was a relatively sharper rise in western German exports to overseas countries from their previously low level, the greater part of the increase in absolute terms was to European countries. The liberalization of trade among western European countries at the end of 1949 has particularly stimulated western German exports to the Netherlands, Belgium and Italy. By contrast, exports to the United Kingdom were very low and have fallen since 1949. The new Anglo-German trade agreement, however, provides for a doubling of turnover. The particularly large exports to the Netherlands may be a passing phenomenon, due to the utilization of the exceptionally large balances in Deutsche Marks, which the Netherlands had previously accumulated.

As may be seen from Table 12, the geographical distribution of western German exports is still rather different from the pre-war pattern. About 70 per cent are still going to western Europe as against 56 per cent in 1936. A tendency to return to a more customary distribution may, however, be observed in the increased

Table 12

EXPORTS FROM WESTERN GERMANY AND WESTERN SECTORS OF BERLIN

Item	1936	1949	1950	1950
		First half-year	First half-year	July and August
<i>Total exports</i>				
Index numbers of volume	100	35	76	101
<i>Percentage distribution by main commodity groups</i>				
Food and raw materials	12	22	18	16
Semi-manufactures	9	33	21	21
Manufactures	79	45	61	63
Total	100	100	100	100
<i>Percentage distribution by main area of destination a</i>				
Eastern Europe b	15	3	7	5
Other European countries	56	81	71	67
of which United Kingdom Netherlands	9 8	10	16	13
United States	4	5	3	5
Other countries of the Western Hemisphere	11	3	7	8
All other countries	14	8	12	15
Total	100	100	100	100

Sources: The figures are derived from *Der Aussenhandel der Bundesrepublik Deutschland*, Teil 1.

NOTE. — All figures refer to exports from the western zones (including the western sectors of Berlin), with the exception mentioned in Note a. The figures for the first half of 1949 include estimates for exports from the French Zone.

a Figures for 1936 refer to exports from the pre-war territory of Germany.

b Czechoslovakia, Poland, Rumania, Hungary, Yugoslavia, Bulgaria, the U.S.S.R. and, for 1936, the Baltic countries.

share going to eastern Europe and Latin America in the first half of 1950.

In an earlier study,¹ some apprehensions were expressed as to whether an eventual large increase in exports from western Germany could be absorbed without serious disturbance to other European exporters except within the setting of a general economic expansion. In this respect the outlook has been greatly affected by the increased armaments programmes of other western European countries and the United States. Western Germany's exports consist mainly of the products of the metals and engineering industries, and even greatly increased quantities might, without difficulty, find outlets on the world market if its competitors devote a larger share of their productive capacities to armaments.

Recent Price Trends

As mentioned above, in countries which devalued their currency in 1949, import prices continued to increase moderately during the second quarter of 1950. Likewise, the effects of devaluation continued to make themselves felt on internal price levels. Table 13 shows the changes that have taken place in the indices of wholesale prices and costs of living during the first nine months following devaluation. In the devaluing countries, wholesale prices had typically risen up to the month of June by about 10 per cent, or about half as much as import prices. With the exception of Finland, France and the Netherlands, the increase in the cost of living is seen to be much smaller. In countries which devalued little or not at all, wholesale prices had fallen somewhat and the cost of living was slightly lower than before devaluation.

¹ See the SURVEY, p. 96.

Table 13
INDEX NUMBERS OF PRICES, JUNE 1950
Third quarter 1949 = 100

Country	Import prices or average unit values for imports	Wholesale prices	Cost of living
Austria	170	118	102
Finland ^a	134	117	120
United Kingdom	119	111	102
Ireland . . . . .	..	105	102 ^b
Denmark	113	111	105 ^c
Norway	117	110	104 ^d
Sweden	120	104	100
Netherlands	119	112	111
France	125	107	108
Germany : western zones	107	103	96
Belgium	106	101	97
Italy	94	95	99
Switzerland	88	96	98
Turkey . . . . .	..	87	96

Sources : The index numbers are derived from Table XVI and from the same sources as those for Table XIII in the section "European Economic Statistics."

^a Second quarter 1949 = 100.

^b May 1950.

^c July 1950.

^d July and September 1949 = 100.

These movements in the general price levels up to the middle of the year may be regarded mainly as the result of devaluation. Dollar prices for several raw materials and foodstuffs, it is true, rose considerably in this period as a result of the improvement of economic conditions in the United States which began in the latter half of 1949 and gained momentum in 1950. However, these price increases mainly affected commodities such as cocoa, coffee, rubber and certain metals, which do not weigh heavily in Europe's imports, and therefore can have had only a limited effect on the price levels in European countries (see Table 14).

From the standpoint of European imports, price developments for raw materials subsequent to the outbreak of the Korean conflict are more far-reaching. The last column in Table 14 shows the upsurge in world market prices that took place from June to September, under the impact of increased demand for armaments production, strategic stockpiling and speculative hoarding. It will be noted that this new price increase is both more violent and broader, affecting also textile raw materials, than was the movement before the end of June. Moreover, this new price wave has not been confined to overseas raw materials, but has affected prices for commodities

Table 14
PRICE DEVELOPMENT OF MAJOR COMMODITIES

Commodity	Unit	Market	Quotations, expressed in United States dollars						Percentage increase	
			1938	1949		1950			Aug. 1949-June 1950	June 1950-Sept. 1950
				Average	August	Dec.	March	June	Sept.	
Cacao	100 lb	United States	5.30	22.6	25.9	22.8	30.8	42.7	36.3	38.6
Coffee	100 lb	United States	7.80	28.4	49.0	47.1	47.7	57.5	68.0	20.5
Wheat	Bushel	United States	0.78	2.03	2.22	2.27	2.16	2.23	6.4	3.2
Cotton	100 lb	United States	9.0	31.0	30.3	31.9	33.8	41.3	9.0	22.2
		Egypt ^a	..	44.6	41.3	45.9	48.8	54.1	9.4	10.9
Wool	100 lb	Dominions ^a	..	85.6	82.9	87.5	94.5	141.8	10.4	50.0
Jute	Short ton	Dundee	82	296	288	287	300	330	1.4	10.0
Rubber	100 lb	United States	14.6	16.0	17.5	19.9	30.9	59.0	93.1	90.9
Copper	100 lb	United States	10.2	17.6	18.5	18.5	22.3	24.5	26.7	9.9
Lead	100 lb	United States	4.74	15.0	12.0	11.0	11.9	16.0	-20.7	34.5
Zinc	100 lb	United States	4.98	10.7	10.5	10.7	15.5	18.2	44.9	17.4
Tin	100 lb	United Kingdom	41.4	103.0	75.7	74.8	75.1	95.0	-27.1	26.5
Mineral oil, refined	Barrel	United States	2.71	4.87	4.52	..	5.13	..	5.3	..

Sources : The figures for 1938 to June 1950 have been taken from *International Financial Statistics*, International Monetary Fund. Those for September 1950 have been taken from the *Financial Times* and the *New York Times*.

NOTE. — The figures refer to monthly averages of quotations with the exception of those for September 1950 which are mid-month quotations.

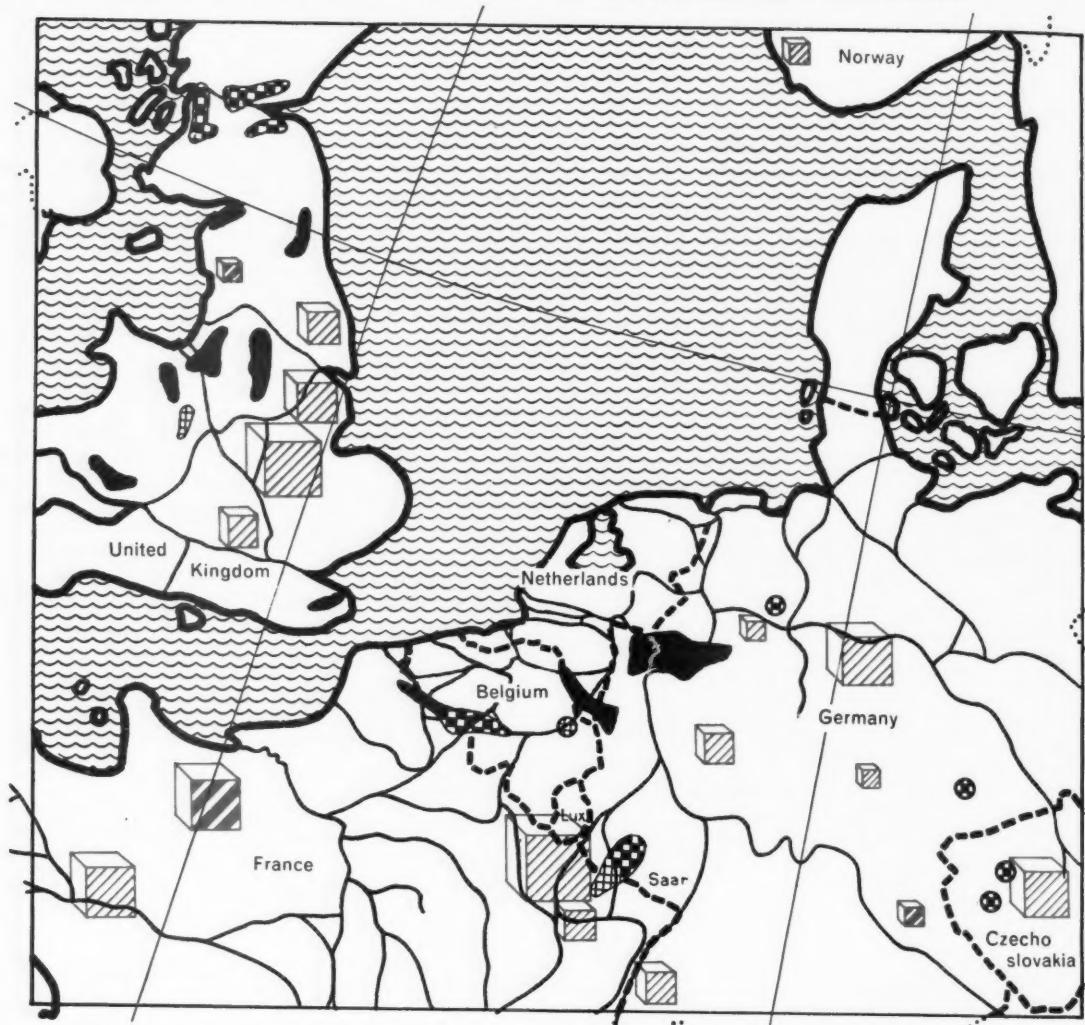
^a As quoted in the United Kingdom.

of European origin as well. Consequently, figures so far available show a considerable increase since June in the price level in European countries as measured by wholesale price indices.

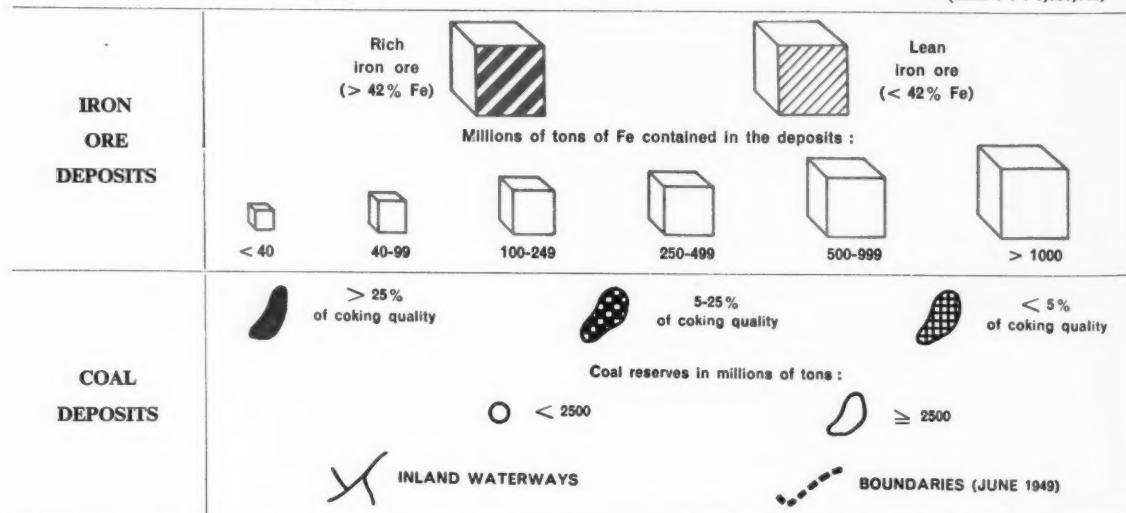
Undoubtedly, the recent increase in commodity prices will, on balance tend to worsen Europe's terms of trade with overseas countries. While Europe will have to pay higher prices for most or all imported

raw materials, the influence of an armaments boom on Europe's exports may be to affect quantities more than prices. Thus, in addition to the worsening of its terms of trade already inherent in devaluation and in addition to the cost of an eventual increase in outlay for armaments, Europe may have to face a renewed deterioration of price relationships with the outside world.

Chart 1. COAL AND IRON ORE PRODUCING REGIONS OF EUROPE



Sources: Adapted from the map of the iron and steel industry of Europe in *European Steel Trends in the Setting of the World Market*, Steel Division, Economic Commission for Europe, 1949.



THE COAL AND STEEL INDUSTRIES OF WESTERN EUROPE

Attention has been focused in recent months on the problem of creating a unified market for the coal and steel industries of western European countries with a view to promoting a more rational distribution of production within the area. The present article provides a brief review of the past and present inter-relationships between these industries, as reflected in the pattern of production and trade, and then undertakes to examine existing differences in costs and prices in coal and in iron and steel.¹ Owing to the complexity of the problems and the difficulty of establishing comparable and adequate data for the various countries, many of the results are necessarily of an approximate nature. They are nevertheless thought to be sufficiently reliable to indicate the character of existing differences between countries.

This report does not try to deal systematically with the past or present organization of the market for the products considered, nor with the broader effects of the institution of a unified market such as its impact on the balance of payments, but it does draw attention to major differences in costs and prices which can exist only by virtue of interferences with the operation of

the market, whether governments impose these interferences or whether they merely permit them to be imposed by the industries themselves.

The most obvious of these interferences are, of course, export and import controls, discrimination in prices and, especially in finished and semi-finished products, customs tariffs; but they are also to be found in many measures regulating production and trade within the domestic markets of different countries, such as price controls and allocations, subsidies, and equalization pools which offset profits and losses between different producers. It would be necessary, if a unified market were to be established, either to remove these interferences or to find ways of keeping them from hindering the development of an efficient pattern of production. The chief purpose of this report is to indicate, with the help of the supporting data, some of the directions in which important economies may be achieved by the establishment of a unified market in coal and steel in western Europe, and to draw attention to some of the difficulties which may be encountered, such as the problem of finding adequate sources of raw materials.

1. PRODUCTION AND TRADE PATTERNS

The relationships among the heavy industries of western European countries may be considered in the light of the summary data for 1937 and 1949 presented in Table 1, although it must be borne in mind that these relationships had become, on the whole, considerably less close before the last war than before the First World War. Broadly viewed, these relationships are of two main types. One of these is the exchange of essential materials more abundant in one region than in another because of natural conditions; the basic materials here considered are coal, coke and iron ore. The second is the exchange of more processed products ranging from pig-iron to finished steel.

¹ The number of countries covered by the data varies according to their relative importance in the industries and products considered and according to the availability of information. In general, an attempt has been made to assemble and analyse data for the major coal and steel producing countries among those participating in the Paris discussions on the Schuman Plan and also for the United Kingdom and, in some instances, Sweden. Details on sources and methods are given in the Appendix, pages 43 to 51.

Pre-war Relationships

Western European industry has been singularly dependent on coal supplied by two major producing and exporting areas, the United Kingdom and western Germany. These two areas alone supplied almost two-thirds of all the coal consumed in 1937 in Europe west of the Soviet Union and, together with the production of the coal fields now included in Poland, supplied more than three-fourths of that consumption. The United Kingdom and western Germany were, of course, the principal consumers of their own production, but their exports nevertheless accounted for about 40 per cent of the coal used in neighbouring western European countries, and substantial additional amounts were exported overseas.²

² The proportions given here and in the following paragraph include coal exported in the form of coke. For more detailed pre-war and post-war data, see "Coal Production and Trade in Europe since the War" in the issue of this *Bulletin* for the third quarter of 1949.

Item	1937							United Kingdom	Sweden	Italy	Belgium	L
	Western continental European countries						United Kingdom	Sweden	Italy	Belgium	L	
	Belgium	Luxem-	France	Saar	Western	Nether-						
HARD COAL												
Production	29.9	—	44.3	13.4	137.6	14.3	244.2	0.3 a	1.5 b	17.9		
Imports, total	6.2	—	24.7	0.3	9.4 *	8.3	—	6.6	12.5	0.9		
From western continental European countries	4.8	—	13.0	0.3	4.2	7.1	—	0.6	7.5	0.7		
Exports, total d	4.3	—	1.7	6.7	45.5	7.1	52.9	—	—	1.5		
To western continental European countries .	3.7	—	0.3	5.1	25.3	3.5	13.5	—	—	0.9		
Apparent consumption	31.8	—	67.4	7.0	101.5	15.5	191.4	6.9	13.9	27.6		
Consumption by coke ovens	8.2 e	—	10.3	4.3	43.9	4.5	22.5 *	0.1	..	6.6		
COKE												
Production (coke ovens only)	5.5	—	7.9	2.8	34.5	3.4	15.2 f	0.1	1.7	5.0		
Imports, total g	—	3.4 h	3.9	—	0.9	0.4	0.1	2.3	0.4	—		
From western continental European countries	—	3.4 h	—	—	0.7	0.4	0.1	—	1.7	0.3		
Exports, total g	1.5 h	—	0.2	0.3	11.5 i	2.4	2.5	—	—	0.6 h		
To western continental European countries .	1.0 h	—	—	0.3	5.2	1.6	0.2	—	—	0.4 h		
Apparent consumption	4.0	3.4	11.6	2.5	23.9	1.4	12.8	2.4	2.1	4.4		
Consumption by iron and steel industry	3.5 k	3.0 k	8.1 k	2.3 k	12.0 k	0.3 l	9.8 k	..	0.7 k	3.1		
IRON ORE												
Production	0.3	7.8	37.8	—	9.3	—	14.4	15.0	1.0	—		
Imports, total	9.4 m	4.7	0.9	5.8	15.2	0.6	7.2	—	0.2	6.7 m		
From western continental European countries	8.5 m	4.7	—	5.8	1.8	0.1	0.4	—	—	5.1 m		
Exports, total	0.3	3.6 m	19.3	—	0.4	—	—	14.0	—	—		
To western continental European countries .	0.3	3.6 m	18.8	—	0.4	—	—	10.5	—	—		
Apparent consumption	9.4	8.9	19.4	5.8	24.1	0.6	21.6	1.0	1.2	6.7		
PIG-IRON n												
Consumption in blast furnaces of :												
Coke	3.5	3.0	8.1	2.3	12.0	0.3 l	9.8	0.2	0.7	3.0		
Scrap	0.5	..	1.0	0.1	0.7	..	0.3	—	0.1	1.0		
Iron ore (including sinter)	9.9	9.0	22.8	5.7	20.3	..	21.8	1.1	1.4	6.6 o		
Production	3.8	2.5	7.9	2.2	13.1	0.3	8.6	0.6	0.8	3.7		
Imports, total	0.3	—	—	0.1	0.1	—	0.7	0.2	—	—		
From western continental European countries	0.2	—	—	0.1	0.1	—	0.1	0.1	—	—		
Exports, total	—	—	0.4	—	0.4	0.2	0.2	0.1	—	—		
To western continental European countries .	—	—	0.2	—	—	0.1	0.1	—	—	—		
Apparent consumption	6.6	7.5	2.3	12.9	0.1	9.1	0.7	0.8	—	—		
CRUDE STEEL												
Consumption in steel works of :												
Pig-iron	3.7	2.5	6.5	2.1	11.0 *	..	6.4	0.5	0.8 b	3.7		
Scrap	0.6	0.2	2.4	0.5	5.6 *	..	7.2	..	1.6	0.6		
Production	3.9	2.5	7.9	2.3	15.2 *	0.1	13.2	1.1	2.1	3.9		
Imports, total p	—	—	—	0.2	0.1	—	0.6	—	—	—		
From western continental European countries	—	—	—	0.2	0.1	—	0.5	—	—	—		
Exports, total p	0.4	—	0.3	0.2	0.2	—	—	—	—	—		
To western continental European countries .	0.1	—	—	0.1	0.1	—	—	—	—	—		
Apparent consumption	6.0	7.6	2.3	15.1	0.1	13.8	1.1	2.1	—	—		
FINISHED STEEL												
Production	2.8	2.1	5.2	1.8	11.6 *	0.1	9.7	0.7	1.8	3.0		
Imports, total	0.1	—	0.1	0.1	2.2 *	1.0	0.6	0.6	0.2	0.1		
From western continental European countries	—	—	—	0.1	1.8 *	0.8	0.5	0.4	—	—		
Exports, total	3.2	—	1.2	1.7	4.6	—	2.1	0.2	0.1	—		
To western continental European countries .	0.7	—	0.3	1.6	0.5	—	0.1	—	—	—		
Apparent consumption	1.8	—	4.1	0.2	9.2	1.1	8.2	1.1	1.9	—		

NOTE. — "Western continental European countries" includes only the six countries or areas listed under this heading.

Many of the trade figures for the Saar have been estimated, entailing corresponding adjustments in pre-war figures for Germany and in post-war figures for France. In addition, estimates have been made for pre-war production in western Germany and for its trade with the rest of pre-war Germany. For details, see Appendix, pages 43 to 51.

a Coal equivalent of low-grade fuel.

b 1938.

c Of which 2.0 million tons and 1.2 million tons were imported from the United Kingdom in 1937 and 1949, respectively.

d Including bunkers.

e Including gasworks.

f Exports.

g Imports.

h Official.

i Imports.

j Consumption.

k Bunker.

IMPROVED COAL AND STEEL INDUSTRIES, 1937 AND 1949

Met

1949

Italy	Western continental European countries						United Kingdom	Sweden	Italy	Item
	Belgium	Luxembourg	France	Saar	Western Germany	Netherlands				
1.5 ^b	27.9	—	51.2	14.3	103.2	11.7	218.6	0.2 ^a	1.1	HARD COAL
12.5	0.9	0.3	15.7	0.9	4.4	4.3	—	3.9	9.0	Production
7.5	0.7	0.3	7.6	0.9	3.9	2.0	—	0.1	2.3 ^c	Imports, total
—	1.5	—	1.0	7.0	12.8	—	19.3	—	—	From western continental European countries
13.9	0.9	—	0.4	6.3	7.5	—	3.1	—	—	Exports, total ^d
..	27.6	—	65.9	8.2	94.8	16.0	199.3	4.1	10.1	To western continental European countries
..	6.6	—	9.0	4.5	32.8	3.3	22.9	0.1	1.8	Apparent consumption
..	—	—	—	—	—	—	—	—	—	Consumption by coke ovens
1.7	5.0	—	7.0	3.4	25.1	2.5	15.7	0.1	1.4	COKE
0.4	—	2.5 ^h	5.1	0.1	—	—	—	1.9	—	Production (coke ovens only)
0.3	—	2.5 ^h	5.0	—	—	—	—	1.6	—	Imports, total ^g
—	0.6 ^h	—	0.1 ^j	1.5 ^j	7.7 ^j	0.9 ^j	0.6 ^j	—	0.1	From western continental European countries
—	0.4 ^h	—	—	1.5 ^j	5.4 ^j	0.4 ^j	—	—	—	Exports, total ^g
2.1	4.4	2.5	12.0	2.0	17.4	1.6	15.1	2.0	1.3	To western continental European countries
0.7 ^k	3.1	2.4	8.3	1.8	8.4	0.5	11.4	0.4	0.3	Apparent consumption
..	—	—	—	—	—	—	—	—	—	Consumption by iron and steel industry
1.0	—	4.1	31.3	—	9.1	—	13.6	13.7	0.5	IRON ORE
0.2	6.7 ^m	3.6	0.4	3.9 [*]	4.5	0.7	8.8	—	0.1	Production
—	5.1 ^m	2.7	0.1	3.9 [*]	0.4	0.1	0.4	—	—	Imports, total
—	—	1.6 ^m	11.1	—	—	0.1	—	12.6	—	From western continental European countries
—	—	1.6 ^m	10.8	—	—	—	—	5.8	—	Exports, total
1.2	6.7	6.1	20.6	3.9	13.6	0.7	22.4	1.1	0.6	To western continental European countries
..	—	—	—	—	—	—	—	—	—	Apparent consumption
0.7	3.0	2.4	8.5	1.5	7.0	0.4	10.1	0.4	0.3	PIG-IRON ⁿ
0.1	1.0	0.3	1.3	0.2	1.7	—	0.8	—	0.1	Consumption in blast furnaces of :
1.4	6.6 ^o	6.3	21.9	3.9	11.1	0.7	20.2	1.2	0.7	Coke
0.8	3.7	2.4	8.3	1.6	7.1	0.4	9.6	0.7	0.4	Scrap
—	—	0.1	—	—	—	—	0.3	0.1	0.2	Iron ore (including sinter)
—	—	—	—	—	—	—	..	..	—	Production
—	—	—	—	—	—	—	—	—	—	Imports, total
—	—	—	—	—	—	—	—	—	—	From western continental European countries
—	—	—	—	—	—	—	—	—	—	Exports, total
—	—	—	—	—	—	—	—	—	—	To western continental European countries
0.8	6.2	8.1	1.6	7.0	0.2	—	9.9	0.8	0.6	Apparent consumption
..	—	—	—	—	—	—	—	—	—	—
0.8 ^b	3.7	2.4	7.1	1.6	6.0	0.1	7.2	0.6	0.4	CRUDE STEEL
1.6	0.6	0.2	2.9	0.4	3.9	0.4	9.9	0.8	1.8	Consumption in steel works of :
2.1	3.9	2.3	9.2	1.8	9.2	0.4	15.8	1.4	2.1	Pig-iron
—	—	—	—	—	—	—	0.3	..	—	Scrap
—	—	—	—	—	—	—	0.2	..	—	Production
—	—	—	—	—	—	—	—	—	—	Imports, total ^p
—	—	—	—	—	—	—	—	—	—	From western continental European countries
—	—	—	—	—	—	—	—	—	—	Exports, total ^p
—	—	—	—	—	—	—	—	—	—	To western continental European countries
2.1	5.8	9.0	1.8	9.2	0.4	—	16.1	1.3 [*]	2.1	Apparent consumption
..	—	—	—	—	—	—	—	—	—	—
1.8	3.0	1.5	6.2	1.2	6.3	0.3	11.7	0.9	1.6	FINISHED STEEL
0.2	—	0.3	0.1 [*]	0.1	0.8	0.9	0.7	0.3	0.1	Production
0.1	—	0.2	0.1 [*]	—	0.6	0.6	..	..	—	Imports, total
0.1	3.0	0.7	0.9 [*]	0.4	—	—	1.8	0.1	0.1	From western continental European countries
—	0.6	0.1	0.4 [*]	0.2	—	—	0.2	—	—	Exports, total
1.9	1.5	5.8	0.3 [*]	6.0	1.1	—	10.8	1.5	1.8	To western continental European countries
..	—	—	—	—	—	—	—	—	—	Apparent consumption

^f Excluding Northern Ireland.

^g Including gas coke.

^h Of which 0.2 million tons were exported from Belgium to Luxembourg.

ⁱ Including 3.0 million tons estimated trade with the rest of Germany.

^j Coke-oven coke only.

^k Blast furnaces only.

^l 1935-1938.

^m Including shipments from Luxembourg to Belgium, which amounted to 1.6 million tons in 1937 and 1.3 million tons in 1949.

ⁿ Including blast furnace ferro-alloys.

^o Excluding sinter.

^p Including semi-finished steel added ton for ton.

The historical dependence on coal from these principal suppliers was greatest, in relative terms, in countries like Italy, Switzerland, Sweden, Luxembourg, Denmark and Norway, whose own coal production is negligible and whose industries have to rely on imported fuels and domestic hydro-electric power. In quantitative terms, however, the dependence was greatest in France, whose own coal production, although the third largest in western Europe, covered only two-thirds of its total needs for industrial and other uses. France was thus the world's largest importer of coal and alone accounted for almost 30 per cent of the total imports of the coal-importing countries of Europe. Production in Belgium and the Netherlands was more nearly equal to their own consumption. Nevertheless, differences in grades and transport advantages gave rise to a substantial import and export trade in coal by both countries, characterized chiefly by imports from Germany and by exports to France as well as to each other.

The dependence of France on imports of coal was especially marked in its iron and steel industry, which relied heavily on supplies of metallurgical fuels from neighbouring countries. France, in turn, supplied part of their needs of iron ore. These relationships underlay the development of the great industrial triangle whose base is formed by the coal producing areas stretching, although not as a continuous field, from the Ruhr westward across the Netherlands and Belgium to northern France, and whose apex to the south embraces the vast "minette" iron ore deposits of Lorraine and the adjacent coal mines of Lorraine and the Saar. The area is relatively compact, the "sides" of the triangle being only some 350 kilometres long, and is well supplied with rail and water communications. This area presented two opposing patterns of development, the one where iron and steel industries were based primarily on the local production of iron ore combined with imported coal and coke, and the other where they were based primarily on the local production of coal combined with imported iron ore. The first of these patterns was typified by the Lorraine iron and steel centre, which alone accounted for roughly three-fourths of total pig-iron production and two-thirds of crude steel production in France before the war, and by Luxembourg, whose iron ore deposits extend those of Lorraine. The second pattern was typified by the Ruhr, with the most abundant reserves of high-quality coking coal in Europe, and by Belgium, northern France, the Netherlands and the Saar.

Although producing substantial tonnages of coke from its own relatively low quality coal, France's long-standing dependence on metallurgical fuels from the Ruhr continued with little change in the inter-war period. As may be seen in Table 1, approximately 30 per cent of the coke consumed in France in 1937 for all purposes was met by imports, chiefly from Germany but also in smaller amounts from the Netherlands and Belgium, and the ratio was in the order of 50 per cent if allowance is made for coking fines imported for carbonization in French cokeries. The iron and steel industry of Luxembourg, which developed before the First World War within the old German customs union, was even more highly dependent on coke from the Ruhr, having no production of its own and deriving little from any other source.

The relative dependence of the Ruhr on iron ore from the Lorraine-Luxembourg mines was, on the other hand, substantially smaller and tended to decrease after the First World War. Even in 1913, under much freer trading conditions than have since prevailed, only about 4.8 million tons or 30 per cent of the Ruhr's total iron ore consumption of 15.5 million tons came from Lorraine (including that part then within the German frontiers) and from Luxembourg. The remainder came chiefly from Sweden and Spain and consisted of ores much richer in iron content.¹ During the inter-war period, the amount obtained from the Lorraine-Luxembourg area was smaller in absolute amount than before and substantially smaller in relation to total consumption in the Ruhr, which expanded rapidly under Germany's war preparations in the late 1930's and was supplied increasingly by imports from Sweden and from overseas sources and by an expanded exploitation of Germany's own lean and high-cost ores, particularly in the Salzgitter area.

By contrast with the Ruhr, the iron and steel industries of Belgium and of the Saar continued to draw their imports of iron ore mainly from the Lorraine-Luxembourg area, facilitated by short and inexpensive transport in both cases. The strength of the Belgian industry was, in fact, largely in transport, since not only virtually all of its iron ore but also a substantial part of its coking coal was imported from neighbouring countries. Access to cheap water transport for bringing in iron ore from

¹ Expressed in iron content, the proportion of the Ruhr's total iron ore consumption supplied from the Lorraine-Luxembourg area was about 25 per cent in 1913.

various supplying sources both inside and outside Europe, together with the good coking quality of its coal, also facilitated the development of pig-iron production in the Netherlands after the First World War. This remained on a small scale, and the proposed steel works were not established at that time.

Compared with the inter-dependence among the major industrial centres of western continental Europe, the exchange of basic materials for the iron and steel industry between that area and the United Kingdom was of negligible importance, apart from British coal exports. The greater part by far of British coal exports before the war consisted, however, of steam-raising grades and, as such, played a major role in meeting the continent's fuel requirements. The United Kingdom's production of metallurgical grades has been sufficient for its own coking plants, whose output was the second highest in Europe although far less than that of the Ruhr. Its exports of these grades appear to have been relatively small, and only minor amounts of coke for metallurgical use were supplied to continental Europe. Likewise, only a very minor part of the United Kingdom's imports of iron ore was supplied from French deposits; this was from mines in the west of France.

The United Kingdom's ties with the Continent were somewhat stronger in the exchange of products in the higher stages of iron and steel production and had been, in fact, considerably more extensive in earlier years than in the 1930's. Before the First World War, the United Kingdom was an important supplier of pig-iron to other countries, although largely for use in foundries rather than for steel-making. Exports in 1913 amounted to 1.1 million tons, of which about two-thirds went to Europe. This trade virtually disappeared during the inter-war period and pig-iron imports into the United Kingdom also remained small.¹ In semi-finished and finished iron and steel products, on the other hand, the United Kingdom itself was for many years one of the major markets for continental European manufacturers, imports consisting largely of semi-finished products for re-rolling in British mills. The total amount of steel imported in crude, semi-finished and finished form was 2 million tons in 1913, rising to some 2.7 million tons in 1929,

of which more than half came from Belgium and the remainder chiefly from Germany and France. British imports at that time were 70 per cent as much in point of tonnage as its total exports of iron and steel goods, although these exports consisted largely of the more advanced products and went almost exclusively to the British Commonwealth and other overseas countries rather than to Europe. In the depression of the 1930's, the import trade into the United Kingdom was reduced to little more than one million tons annually in most years, following the imposition of relatively high protective duties and quota limitations.

Before the First World War, the trade in pig-iron between continental centres had also been of some importance, the most important traffic being that from Lorraine and Luxembourg to the Ruhr, which amounted to about 1.6 million tons in 1913. During the inter-war period, this trade became negligible. This was also generally true of trade in crude and finished steel among the leading continental producing areas. In 1913, Germany had marketed around 600 or 700 thousand tons of steel products in both Belgium and the Netherlands and about one-half as much in France,² and there had also been a significant trade, of a two-way character, between Belgium and France. The Netherlands, lacking a steel industry of its own, remained a major importer, particularly of finished products from Germany and Belgium-Luxembourg, but otherwise trade among the western European industrial countries after the First World War became of minor importance in relation to the volume of their own production.³

Economic relations with certain outlying centres of production were, in some respects, more developed than those between the main industrial centres of western Continental Europe on the one hand and the United Kingdom on the other. This was particularly true of Sweden, whose rich iron ore became of increasingly great importance to the Ruhr during the inter-war period and at the same time filled a substantial part of the import needs of the United Kingdom and various other producers. It was, in turn, a principal market for coal and coke as well as for

¹ The figures cited are for the old German customs union (including Luxembourg).

² The relatively large volume of exports of finished steel by the Saar and of imports by western Germany shown in Table 1 for 1937 was, of course, chiefly internal German trade at that time, which was not only unrestricted as compared with international trade but was also stimulated by Germany's heavy armament programme.

¹ The total amount imported into the United Kingdom in 1937 (700 thousand tons as shown in Table 1) was exceptionally large and most of it, moreover, came from overseas countries, especially India and the United States.

finished steel supplied by continental and British producers.¹

On the other hand, in the case of the Italian iron and steel industry, the dependence has run almost entirely in one direction, since Italy has had to obtain its metallurgical fuels from other European countries and has also had to cover part of its iron ore requirements through imports. This dependence on outside raw materials with high transport costs led to the highest use of scrap, in relation to pig-iron, in Europe, but for this material also Italy was dependent on appreciable imports.

In brief, therefore, the pre-war relationships among the heavy industries of western Europe were characterized by a marked dependence on coal from the United Kingdom and Germany; an active exchange of iron ore against metallurgical fuels among the various regions forming the great industrial triangle of western Continental Europe; a heavy dependence on outside supplies of iron ore by a part of this area, particularly the Ruhr, and by the United Kingdom, which was met in part by imports from Sweden; and a relatively low and generally declining participation by the major producers of steel products in each other's home markets.

Post-War Trends

Since 1937, great changes have taken place in the western European pattern of production and supply in the field of heavy industries, particularly in coal and coke and in iron ore.

The partial recovery achieved in coal production after the war still left total output in 1949 short by 57 million tons compared with production in 1937 in the countries covered by Table 1. The decline has been concentrated in the two countries with the largest and best reserves, the United Kingdom and western Germany. In France and the Saar, on the other hand, coal production was above the 1937 level, and it was relatively closer to the pre-war volume in Belgium than in the United Kingdom and western Germany.

The decline in production in the United Kingdom and western Germany has been matched by an extremely sharp fall in their exports to other countries in Europe and overseas, net exports from these two

¹ Sweden was also an important supplier of high-grade steel manufactures, relatively small in tonnage but high in value, to the leading industrial countries of western Europe as well as to other markets.

sources being only 28 million tons in 1949 compared with 89 million tons in 1937. As a result of the priority given to home demand, the United Kingdom has even been able to increase its own consumption, and that in western Germany was only some 7 million tons less in 1949 than in 1937. The impact of the decline in production has thus fallen chiefly on the coal importing countries. In the largest of these, France, a serious fall in consumption has been avoided through increased imports from other sources and a substantial rise in its own production.

In coke, the decline of production in relation to pre-war is almost entirely in western Germany. This decline, however, was apparently more than balanced by the reduction in consumption within that area and in its shipments to eastern Germany. German exports to neighbouring western European countries thus actually increased, especially to the French market. Belgium, the Netherlands and the United Kingdom, on the other hand, have exported less coke than before the war, and have thus increased their apparent consumption. All told, exports to the Scandinavian and other outside countries, consisting mainly of non-metallurgical varieties, have been much smaller than before the war.

In iron ore, two main changes may be noted. First, there has been a decline of almost 20 per cent in production in western Continental Europe. Second, there has been a drastic fall in Germany's imports of ores, particularly from Sweden and from overseas sources. These changes may be seen from Table 2, where the figures are expressed in iron content in order to facilitate comparison. The decline in iron ore production has been mainly in France and the adjoining Luxembourg fields. In these two countries production in 1949 was approximately 3.2 million tons less, in terms of iron content, than in 1937. In France, consumption of home-produced ores was maintained and the fall in output was matched by a fall in exports, especially to Belgium and western Germany, and also to Luxembourg which had drawn part of its supplies from the Lorraine mines before the war. In Luxembourg, the reduced home output has been supplemented by imports from Sweden.

In western Germany, iron-ore production has been maintained while its imports, as already mentioned, have fallen, with the result that the reduced volume of steel production has depended to a much greater extent on its own high-cost ores than before the war.

IRON ORE PRODUCTION, TRADE AND APPARENT CONSUMPTION, 1937 AND 1949
Millions of tons in terms of iron content

Item	Belgium	Luxem-bourg	France	Saar	Western Germany	Nether-lands	United Kingdom	Italy	Sweden	Total
1937										
Production	0.1	2.2	12.7	—	2.5	—	4.3	0.5	9.4	31.6
Imports, total	3.2	1.5	0.4	1.8	9.4	0.4	3.9	0.1	—	20.8
of which from Luxembourg	0.5	0.2	0.1	0.2	0.6	0.1	0.2	—	—	1.0
France	2.2	1.5	0.1	1.5	5.7	0.1	0.1	—	—	6.2
Sweden	0.2	—	0.1	—	1.0	0.1	1.3	0.1	—	7.2
North Africa	—	—	—	—	1.9	0.1	1.3	—	—	2.7
Other countries	0.3	—	—	—	—	—	—	—	—	3.6
Exports, total	0.1	1.0	6.2	—	0.1	—	—	—	—	8.8
of which to western Europe ^a	0.1	1.0	6.2	—	0.1	—	—	—	—	16.2
Other countries	—	—	—	—	—	—	—	—	—	—
Apparent consumption	3.2	2.7	6.9	1.8	11.8	0.4	8.3	0.6	0.6	36.2
1949										
Production	—	1.1	10.5	—	2.4	—	4.1	0.3	8.7	27.1
Imports, total	2.6	1.5	0.2	1.3	2.6	0.4	5.0	0.1	—	13.6
of which from Luxembourg	0.3	—	—	1.3	0.1	—	0.2	—	—	0.4
France	1.2	0.9	—	—	0.1	0.1	2.0	—	—	3.8
Sweden	0.9	0.6	0.1	—	2.2	0.1	1.3	—	—	5.8
North Africa	—	—	—	—	0.1	0.1	1.3	—	—	1.8
Other countries	0.2	—	—	—	0.1	0.1	1.3	—	—	1.7
Exports, total	—	0.4	3.8	—	—	—	—	—	—	8.0
of which to western Europe ^a	0.4	0.4	3.8	—	—	—	—	—	—	12.2
Other countries	—	—	—	—	—	—	—	—	—	—
Apparent consumption	2.6	2.2	6.9	1.3	5.1	0.4	9.1	0.3	0.7	28.5

Note. — The percentages of iron content used are those shown in Table 9, except for western Germany, where the percentage (26.7) is derived from German production statistics. The iron content of ores has been calculated from the gross quantities used in Table 1.

Many of the trade figures for the Saar have been estimated, entailing corresponding adjustments

in pre-war figures for Germany and in post-war figures for France. In addition, estimates have been

made for pre-war production in western Germany and for its trade with the rest of pre-war Germany.

For details, see Appendix, pages 43 to 51.

^a Comprising countries listed in the heading of the table.

In 1937, these ores provided one-fifth of its total consumption and in 1949 the proportion had risen to almost one-half. In the United Kingdom, iron ore production was also only slightly less in 1949 than before the war, and these supplies have been supplemented by increased imports from Sweden and Africa. As the net result of these changes, the apparent consumption of iron ore in western Europe was less by almost 8 million tons, in iron content, in 1949 than in 1937, or by about one million tons if western Germany is excluded.

Despite this fall in iron ore consumption, crude steel production in the area as a whole was reduced by only slightly more than 2 million tons and, outside western Germany, was actually greater by some 3.8 million tons. This has been possible because of a greatly increased consumption of iron and steel scrap, both in the production of pig-iron and in steel-making. The total amount of scrap consumed in western Europe in 1949 was about 5 million tons greater than before

the war and, on a ton-for-ton basis, was equal to more than one half of total crude steel production.¹ Table 3 shows that this increase has been accompanied by wide changes in international trade in scrap, although in most countries the greater part of consumption is covered by domestic scrap collection. Before the war, Belgium and France were important exporters of scrap, since the predominance of the Thomas process of steel-making limited their own consumption demands, whereas the United Kingdom, western Germany and Italy were the major buyers and imported scrap not only from European sources but also from the United States. Since the war, Belgium and France, as well as most other European countries, with the exception of Germany, have greatly increased

¹ The figure refers to the total supply of scrap arising from all sources including circulating scrap collected within the iron and steel industries, process scrap collected from the metal-working industries and also old scrap comprising disused (or damaged) steel equipment and goods.

Table 3
SCRAP TRADE, CONSUMPTION AND APPARENT PRODUCTION,^a 1936-1938 AND 1949
Millions of tons and percentages

Item	Belgium	Luxem- bourg	France	Saar ^b	Western Germany	United Kingdom	Sweden	Italy	Total
<i>1936-1938</i>									
Net imports (—) or net exports (+) .	+ 0.4		+ 0.4	—	— 0.7	— 0.7	— 0.1	— 0.5	— 2.2
Consumption of scrap in :									
Blast furnaces	0.3	—	0.7	0.1	0.8	0.3	—	0.1*	2.3
Steel works	0.5	0.2	2.2	0.5	6.1	7.0	0.6	1.6*	18.7
Blast furnaces and steel works ^c . .	0.8	0.2	2.9	0.6	6.9	7.3	0.6	1.7*	21.0
<i>Total consumption ^d as a percentage of crude steel output</i>	26	11	42	27	43	61	61	81	46
Apparent production	1.4		3.3	0.6	6.2	6.6	0.5	1.4	20.0
<i>1949</i>									
Net imports (—) or net exports (+) .	— 0.3		+ 0.2	—	+ 3.2	— 2.1	— 0.2	— 0.4	+ 0.4
Consumption of scrap in :									
Blast furnaces	1.0	0.3	1.3	0.2	1.7	0.8	—	0.1	5.4
Steel works	0.6	0.2	2.9	0.4	3.9	9.9	0.8	1.8	20.5
Blast furnaces and steel works ^c . .	1.6	0.5	4.2	0.6	5.6	10.7	0.8	1.9	25.9
<i>Total consumption ^d as a percentage of crude steel output</i>	41	22	46	32	61	68	61	92	57
Apparent production	1.8		4.4	0.6	8.8	8.6	0.6	1.4	26.2

NOTE. — Many of the trade figures for the Saar have been estimated, entailing corresponding adjustments in pre-war figures for Germany and post-war figures for France. For details, see Appendix, pages 43 to 51.

^a "Apparent production" is defined as consumption plus exports less imports.

^b Pre-war consumption data refer to 1936 and 1937.

^c Consumption added ton for ton.

^d Consumption in blast furnaces and steel works.

their total consumption of scrap, and Germany itself has temporarily become a major exporter both to Europe and to the United States.

In contrast to these changes which have, on the whole, tended to reduce the interchange of raw materials between the major iron and steel-producing centres of western Europe, there has been little change in the level and pattern of trade in more finished products, apart from the decline in the trade of western Germany and the Saar. Trade in pig-iron and crude steel remains negligible, largely for technical

reasons, while trade in finished products is generally at approximately the same level as in 1937 when it had already declined considerably compared with previous decades.

In order to examine the possible economies that might be realized through the unification of the market and the consequent adaptation of the pattern of production and trade examined above to a more rational structure, the following sections analyse the present structure of prices and costs in the coal and steel industries.

2. COSTS AND PRICES IN COAL-MINING

The six major coal-producing countries of western Europe show very wide divergences both in labour productivity and in labour costs per man-shift (at existing rates of exchange). As may be seen from the national averages given in Table 4, the differences in labour costs work in a direction which, in general, tends to exaggerate rather than offset the effect of differences in productivity. In the two extreme cases, Belgium has not only the lowest output but the highest labour cost per man-shift, while the Netherlands has the highest output together with the lowest labour cost. The average labour costs per ton of coal raised are thus about three and a half times as high in Belgium as in the Netherlands. In France, while labour costs (after the

recent wage increases) are slightly higher than in the United Kingdom, productivity is distinctly lower, so that labour costs per ton are the highest, after Belgium, among the main producers of western Europe. On the other hand, in the Saar, and still more so in the Ruhr, labour costs are lower than in the United Kingdom, but lower productivity offsets this in the Ruhr and more than offsets it in the Saar.

Labour costs are thus relatively low in the two countries with the largest reserves of high-quality coal—western Germany and the United Kingdom—and are still lower in the Netherlands, whose production seems rather small in consideration of this advantage and in relation to the size and quality of its coal

Table 4
PRODUCTIVITY COSTS AND PRICES IN COAL MINING, FIRST HALF OF 1950
Quantities and dollars at current exchange rates

Country	Total output (millions of tons, annual rate)	Output per man-shift (over-all) (tons)	Labour costs per man-shift (over-all) (dollars)	Labour costs per ton (dollars)	Total operating expenses per ton ^a ^b raised (dollars)	Average pithead price per ton ^b (dollars)
Belgium	28.3	0.69	5.84	8.53	13.07 ^c	13.70
France	51.8	0.75	5.13	6.87	8.74	10.00
Saar	15.1	0.94	4.62	4.90	7.91 ^c	9.64
Western Germany . .	107.6	1.06	4.39	4.14	7.33	7.92
Netherlands	12.1	1.42	3.51	2.46	..	..
United Kingdom . .	223.2 ^d	1.21	4.99	4.13	5.90	6.61

^a Comprising cost of labour, materials, fuels and general expenses. Taxes, depreciation, amortization and interest payments are excluded.

^b Costs and prices are for the latest available date, generally the first or second quarter or an average of the two.

^c Approximate figure. See Appendix, pages 43 to 51.

^d Including open-cast coal and production of licensed collieries. See Appendix, pages 43 to 51.

reserves.¹ The fact that coal production in these countries remains lowest in relation to pre-war levels, and their exports lower still, explains the pressure on other countries to maintain or even expand their own higher cost production.

The principal cost element in mining coal is labour, but other operating costs² seem to be high in western Germany, raising its total operating costs above those of the United Kingdom³ but still leaving them below the French. Total operating costs are even higher in Belgium.

In general, the pithead prices reflect fairly closely the differences in operating expenses. In Belgium, there is a Government subsidy (which has been progressively diminishing since October 1949), but prices are still about twice as high as in the United Kingdom and about two-thirds higher than in western Germany. No corresponding figure is available for the Netherlands, but its very small labour costs indicate that total operating costs may be fairly low, even if the modern equipment and techniques employed tend to increase other operating costs. There is, however, reason to believe that the pithead prices are high in relation to total costs, in part because of the practice of spreading the cost of more expensive coal imported from Germany.

Table 5, giving not only the national averages but also the averages for the principal producing regions within each country as of 1949, provides a fuller view of the spread in costs between the more efficient and the less efficient producers. It shows, for example, that, in the Liège region of Belgium, relatively low productivity and relatively high labour costs bring the average labour costs per ton raised to almost \$2 above

¹ The data given in Table 4 are limited to western European countries and therefore do not cover Poland, the largest producer after the United Kingdom and western Germany. Comparable data on labour productivity and costs are not available for Poland, but its costs per ton raised appear to be relatively low.

² Owing to wide differences in accounting practices, it is not possible to give comparative figures for total costs including depreciation. Total operating expenses shown in Table 4 include labour, raw material and fuel costs, and administrative and general expenses—*i.e.*, all costs other than interest and amortization of capital and taxation.

³ The major part of the difference between the United Kingdom and Germany is to be accounted for by lower expenditure in the former country on fuel and raw materials. These appear to account for about 20 per cent of the total operating costs in the United Kingdom and 40 per cent of those in western Germany. A part of the difference may be due to different accounting methods—*e.g.*, the extent to which improvements and repairs to mines are considered as expenditure on current account.

the national average. Similar high relative costs occur in the Cévennes and Dauphiné regions in France and in the northern, south-western and south-eastern regions in the United Kingdom. These cost differences can persist partly because of the costs of transport and quality differences, but also partly because it is common in European countries to-day, whether their coal industries are nationalized or under private ownership, for profits and losses to be wholly or partially offset by a pool which operates as a subsidy to marginal producers. This is quite apart from any subsidies provided to the coal industry as a whole, such as that still remaining in Belgium.

Table 5 shows that the differences in the conditions of production are, in general, much greater between different countries than between the various regions in the same country. The generally higher costs in some countries than in others doubtless mainly reflect differences in the nature of their coal deposits and the physical conditions of mining, but the data also suggest that the differences may be due in considerable measure to institutional as well as natural causes; that is, to differences in efficiency, in techniques of exploitation, and in wage levels. Differences in wage rates, together with social charges and allowances, are clearly much more pronounced between different countries than between different regions of the same country. But it appears from the comparison of labour productivity that other institutional factors, varying from country to country, are very important. This seems clear in a comparison between the Campine region of Belgium and the Limburg mining area in the Netherlands. These two regions are part of the same coal basin; the natural conditions in the two regions are similar; the mines in both regions are of relatively recent origin; and yet productivity in the Belgian area is much lower than in the Dutch mines. Output per man-shift underground in 1938 was 1.52 tons in Campine as compared with 2.37 in Limburg, and in 1949 it was 1.08 as compared with 1.73 tons. It seems improbable that such variations can be explained by differences in the physical situation of the seams.

The distinction between high costs due to institutional factors and high costs due to natural causes is important because it may be possible to do something about correcting the former. There is undoubtedly considerable room for increasing output per worker where productivity has lagged because of inefficient management or failure to apply more modern methods.

Table 5

REGIONAL PRODUCTIVITY AND LABOUR COSTS IN COAL MINING, 1949

Quantities and dollars at fourth-quarter 1949 exchange rates

Country and region	Production		Labour costs			Total labour costs per ton (dollars)	
	Total output (millions of tons)	Output per man-shift (over-all) (tons)	Per man-shift (over-all)				
			Wages (dollars)	Social charges and allowances (dollars)	Total labour costs (dollars)		
<i>Belgium</i>	27.8	0.64	4.24	1.60	5.84	9.13	
Mons	4.6	0.61	4.36	1.64	6.00	9.84	
Centre	3.7	0.65	4.23	1.59	5.82	8.95	
Charleroi	7.0	0.64	4.16	1.57	5.73	8.95	
Liège	4.5	0.55	4.39	1.65	6.04	10.98	
Campine	8.0	0.75	4.14	1.56	5.70	7.60	
<i>France</i>	51.2	0.70	2.57	1.91	4.48	6.40	
Nord-Pas-de-Calais	27.7	0.64	2.49	1.91	4.40	6.88	
Lorraine	9.8	0.96	2.87	2.13	5.00	5.21	
Blanzy	2.6	0.87	2.62	1.78	4.40	5.06	
Loire	3.8	0.73	2.43	1.66	4.09	5.60	
Auvergne	1.2	0.67	2.60	1.90	4.50	6.72	
Cévennes	2.9	0.59	2.73	1.85	4.58	7.76	
Aquitaine	2.0	0.72	2.72	1.82	4.54	6.31	
Dauphiné	0.5	0.60	2.74	2.15	4.89	8.15	
<i>Saar</i>	14.2	0.85	2.65	1.80	4.45	5.27	
<i>Western Germany a</i>	103.2	1.03	2.55	1.33	3.88	3.76	
Ruhr	96.3	1.05	2.54	1.34	3.88	3.69	
Aachen	5.1	0.84	2.59	1.34	3.93	4.65	
Niedersachsen	1.9	0.78	2.65	1.25	3.90	5.02	
<i>Netherlands b</i>	11.7	1.41	2.74	0.55	3.29	2.33	
<i>United Kingdom</i>	203.9 c	1.18	4.31	0.56	4.87	4.13	
Scottish Division	23.8	1.14	4.21	0.40	4.61	4.05	
Northern Division	39.5	1.01	4.33	0.71	5.04	5.01	
North-Eastern Division	42.5	1.29	4.38	0.55	4.93	3.82	
North-Western Division	14.4	1.05	4.07	0.39	4.46	4.26	
East Midlands Division	39.5	1.69	4.87	0.57	5.44	3.23	
West Midlands Division	18.2	1.30	4.28	0.51	4.79	3.69	
South-Western Division	24.3	0.89	3.94	0.52	4.46	4.98	
South-Eastern Division	1.6	1.16	4.96	0.52	5.48	4.73	

a Data on labour costs include wages of workers in ancillary establishments and family allowances (\$0.07 for the *Bundesgebiet*). See Appendix, pages 43 to 51.

b Data on labour costs include wages of workers in ancillary establishments. See Appendix, pages 43 to 51.

c Excluding open-cast coal and production of licensed collieries, which together account for another 14.7 million tons. Northern Ireland is not included.

Table 6 seems to show that the price differences between the western European countries are greater now than they have been for many years. With one or two exceptions, pithead prices during the past forty years were fairly close to one another, although much higher than in the United States. It is interesting to observe, however, that, since the recent devaluations, the pithead prices for coal in western European countries are closer to those of the United States than at any time since 1886. While the price of coal in the United States was about the same as that of the United Kingdom or Germany in 1886, by 1913 the greater increase in American productivity established a very definite price advantage which was just about maintained throughout the inter-war period.

Table 6
AVERAGE PITHEAD PRICES OF COAL, 1886 TO 1949

Dollar price per ton ^a

Country	1886	1913	1924	1929	1936	1949 ^b
Belgium	1.60	3.63	5.25	4.44	3.62	13.36
France	2.21	3.29	4.34	4.35	5.18	9.98
Germany (Ruhr)	1.10	2.87	4.44	3.58	4.20	7.92 ^c
Netherlands . .	—	—	—	3.58	3.40	..
United Kingdom	1.16	2.46	4.16	3.32	3.58	6.61
United States ^d .	1.09 ^e	1.30	2.43	1.96	1.94	5.50 ^f

^a Prices have been converted to United States dollars at exchange rates of the period considered.

^b Prices converted at post-devaluation rates of exchange.

^c First quarter 1950. ^d Bituminous coal. ^e 1890. ^f 1948.

Table 7 shows that by 1949 output per man-shift in western European countries other than the Netherlands had not recovered very far above the levels reached forty years ago. The improvements achieved during the inter-war period have not been regained after the war (except in the United Kingdom, where the rise in productivity before the war had been very small). In the United States, on the other hand, the productivity of labour in coal-mining showed a more substantial increase after the Second World War than after the first. In terms of productivity, therefore, the United States' lead is greater now than ever. The reduced gap in terms of costs and selling prices is thus entirely due to the relatively greater increase in American wages, account being taken of changes in exchange rates.

Table 7
PRODUCTIVITY
IN COAL MINING, 1881 TO 1949
Output per man-shift or per man-day in tons

Country	1881-1890	1909-1913	1924	1929	1936	1949
Belgium . . . .	..	0.54	0.45	0.58	0.80	0.64
France	0.69	0.68	0.58	0.69	0.86	0.70
Saar . . . .	..	0.84 ^a	0.71	0.84	0.95	0.85
Germany (Ruhr)	..	0.94 ^a	0.86	1.27	1.71	1.05
Netherlands . .	..	0.82 ^a	0.84 ^b	1.25	1.78	1.41
United Kingdom	..	1.03 ^c	0.89	1.10	1.20	1.18
United States ^d .	2.32 ^e	3.23	4.14	4.40	4.19	5.68 ^f

NOTE. — The data refer to underground and surface workers. Owing to certain differences in the definition of the labour force (i.e., in the range of surface workers included), the figures are not strictly comparable between the different countries.

^a 1913. ^c June 1914. ^e 1890.

^b 1925. ^d Bituminous coal. ^f 1948.

The price differences between western European countries are, in many cases, considerably greater than can be accounted for by transport costs. With present freight charges, the cost of moving a ton of coal by sea or inland waterway is not more than \$1 from the Netherlands to Belgium, \$3 from the United Kingdom to the French coast or to Belgium, or \$2 from the Ruhr to Brussels—in each case much less than the difference in average pithead selling prices. The cost of shipping Ruhr coal to France depends, of course, on the place of delivery and on the method of transport. In general, the delivered price of German coal sent by sea is lower than that of French coal along the French coastline; but further inland and nearer to the coal producing regions of northern and eastern France, to which Ruhr coal would ordinarily have to be transported by rail, the opposite is true. With the present railway tariffs, it costs roughly \$2 more to ship coal or coke from the Ruhr to the Lorraine iron and steel centre at Homécourt than from northern France, although the distance is almost the same. This is rather less than the excess of the north French pithead prices over those of the Ruhr. Moreover, as this example indicates, the present rail freight charges favour domestic traffic and penalize movements across international boundaries, so that they do not accurately reflect the real costs of transporting domestically produced coal as compared with imported coal. This problem will be considered in more detail in a later section.

The prevalence of cost and price differences greater than can be accounted for by current transport charges rests on the controls and regulations mentioned at the beginning of this article. One of the most important of these is the policy followed by some of the principal coal producers of charging more for export coal than for coal in the home market. In the United Kingdom, the average export price at the pithead is approximately £1 (\$2.80) per ton, or about 40 per cent, above the corresponding home market price. In western Germany the price differential has been less and is being progressively reduced. It varies according to destination, means of transport employed, and grade of coal. For coking fines it was the equivalent of about \$2.50 per ton in the first half of 1950 for sales to Belgium and the Netherlands, whether transported by rail or by inland waterways, about \$1 for sales to France for delivery by rail, and more than \$2 on sales for delivery to France by inland waterway.¹ The extra charges were approximately the same for metallurgical coke as for coking fines, in the case of shipments to Antwerp and Rotterdam, but were about \$0.30 less on exports to France and Luxembourg.

These export differentials are, in some instances, partially offset by subsidies provided by coal importing countries. Thus, the French Government, through the Caisse de Compensation, pays a substantial subsidy on imports of German coking coal to keep its price more or less in line with that of coking fines

produced in northern France and delivered to Lorraine.² Over the whole range of German fuels imported into France (including coke but excluding briquettes), the average export differential is about \$1 per ton, while the average French subsidy is about \$1.15 per ton. In this case the effect of double pricing by Germany tends to be offset by the subsidy paid by France, the net effect being mainly to increase the amount paid by France for its imported coal.

It must be remembered that the post-war coal shortage in western Europe has only recently been eased and now shows signs of again becoming a problem. The principal coal-producing countries have thus far tried to keep coal prices low in the home market in order to combat inflation and support industrial recovery. In conditions of shortage, any abrupt abolition of the controls and subsidies might tend to raise prices in the low-cost areas rather than to lower prices in the high-cost areas. In the longer run, however, the freeing of the market would be necessary for a more rational distribution of western Europe's resources. If the observed cost differences should persist in large measure even with a substantial expansion of the production in the low-cost areas (and a decrease of production in the high-cost areas), very great benefits would be derived from the abolition of the export differentials, the subsidies, the discriminatory transport charges and other controls and regulations which now distort the price structure.

3. MATERIALS AND COSTS IN PIG-IRON PRODUCTION

Whereas labour is the main cost element in coal-mining, raw materials account for 70 to 80 per cent of the total cost of pig-iron,³ and an examination of the principal materials employed affords an indication of the cost of pig-iron making as a whole in different countries. In the following paragraphs the prices paid for each of the three principal materials—coke, iron ore, and scrap—are considered, and their rôle in the cost of pig-iron making in different western European countries is then analysed.

¹ The figures cited represent the differences between the effective pithead price on domestic sales and export sales, after adjustment in the case of the latter for freight to frontier or waterport, and the differentials are therefore not to be confused with the cost of transport as such.

² The French Government subsidy for imported coking fines and its price policy on imported coke thus tend to offset, to the advantage of Lorraine coking plants, the greater differential which Germany levies on exports of coking fines as distinguished from coke, presumably also with a view to supporting its own coking plants.

The Costs of Coke

As is shown in Table 8, the relationship between the prices paid for coke by the iron and steel industries in different countries is rather different from that for coal. This is partly due to the fact that the price of coking fines is in some countries higher, and in other countries lower, than the average pithead prices of coal, reflecting different availabilities of coking coal and different price policies in the respective coal industries ; partly to differences in the prices of by-products ; and partly to differences in the transport costs involved in the delivery of coal to coke ovens and of coke to consumers. As a combined result of these

³ The rest of the cost being accounted for mainly by power, labour, rents, taxes and depreciation, while sales of blast furnace gas represent a substantial income.

Table 8
DOMESTIC MARKET PRICES OF COAL, COKING FINES AND COKE, FIRST HALF OF 1950
Average or typical quotations expressed in dollars per ton

Country	Price of coal at pithead	Price of coking fines at pithead	Price of coke at coke ovens	Coke delivered to blast furnaces	
				Price	<i>As per cent of pithead price of coal</i>
United Kingdom	6.61	6.99	9.92	11.23	170
Western Germany	7.92	7.74	10.00	10.71	135
France ^a	10.00	10.36	13.44	16.47	165
Belgium	13.70	12.78	15.10	15.90	116

^a The coal price is a weighted average for the whole of France. Prices of coking fines and coke are those for Nord and Pas-de-Calais only, the delivered coke prices being those valid for blast furnaces in the Lorraine area. The price of Lorraine fines (which form only a small part of French production) is \$9.07 per ton, while the price of coke made from these fines is \$14.59 per ton at the cokery and about \$15.90 per ton delivered at blast furnaces.

factors, the delivered coke price in the United Kingdom is 70 per cent above the average pithead price of coal, while in Belgium it is only 16 per cent higher. This low margin in Belgium is mainly in the spread of only 18 per cent between the price of coking fines and that of coke, which clearly reflects an abnormal price relationship since, in terms of physical quantities alone, it takes about $1\frac{1}{3}$ tons of coking fines to produce one ton of coke.

The dispersion in delivered coke prices among the various countries is therefore, for a variety of reasons, not nearly so great as the dispersion in coal prices. The lowest delivered coke price, \$10.71 per ton, is to be found in western Germany, the largest producer and exporter, and the highest price, \$16.47 per ton, in France, the largest importer of metallurgical fuels. At present, the delivered cost of German coke in Lorraine (through the French official import agency ATIC) is not substantially different, however, from that of coke from northern France—slightly less in the case of German coke delivered by rail and rather greater in the case of German coke exported by inland waterway—and the French and German products are, in fact, sold to the consumer at the same price. This near equality in delivered price arises, however, from double pricing on German exports and from higher freight rates on the imported than on the domestic coke. The elimination of these anomalies would permit Ruhr coke to be sold in Lorraine, on the basis of present domestic prices in the two producing areas, for about \$3.00 to \$3.50 less per ton than coke from

northern France.¹ Although the general level of German coal prices might well rise compared with those now charged for sales to domestic consumers, if a unified market were created, it seems clear that very significant economies in the cost of coke to the French steel industry could be achieved through a greater relative use of German coke, in addition to the operating economies gained because of the superior properties of the German as compared with the French product for blast furnace use.

The Costs of Iron Ore

The average prices in April 1950 of home-produced ores in western European countries together with the prices of imported ores (taken c.i.f. United Kingdom ports) are given in Table 9. Comparison of the prices of these ores is rendered difficult because of their widely different iron content and self-fluxing and other properties. The prices are shown not only per ton of ore but also per ton of iron content. Nevertheless, the problem of comparability still remains, because the richer ores permit considerable economies in the amount of coke required for blasting and fuller use of blast furnace capacity, and thus may command a substantial premium over lower-grade ores per unit of iron content.

¹ The differential in price thus becomes greater in the case of coke than that observed with regard to coking fines, mainly because of the fact that production of a ton of coke requires about one-third greater weight of coking fines. The same factor, i.e. the economy in transport, is the principal reason why German coke could be delivered in Lorraine at a lower price than coke produced in Lorraine from imported German coking fines.

Table 9

PRICES OF DOMESTIC AND IMPORTED IRON ORES, APRIL 1950

Dollars per ton of ore or ton of iron content and percentages

I. DOMESTIC ORES BY COUNTRY OF PRODUCTION

Type of quotation	United Kingdom	Western Germany	France		Luxembourg
			Lorraine	Western France	
Price at mine, f.o.r.	0.98	4.40	1.94 ^a	3.22	1.94 ^a
Price delivered to blast furnaces in home country	1.82	4.93	2.80	5.82	2.14
Iron content (per cent)	30	30	32.5	48	27.7
Price at mine per ton of iron content	3.27	14.67	5.97	6.71	7.00
Delivered price per ton of iron content	6.07	16.43	8.62	12.12	7.73

II. IMPORTED ORES, BY COUNTRY OF ORIGIN

Type of quotation	Sweden	Spain	Algeria	Tunisia	French Morocco	Spanish Morocco	Sierra Leone	Newfoundland
Price, United Kingdom ports, c.i.f.	8.43	7.42	8.26	8.20	6.24	9.38	6.75	9.10
Iron content (per cent)	63	50	53	54	46	58	60	52
Price, United Kingdom ports per ton of iron content, c.i.f.	13.38	14.84	15.58	15.19	13.57	16.17	11.25	17.50

^a The figure is based on estimates of cost rather than selling price to the extent that mines are owned by the iron and steel industry. For details, see Appendix, pages 43 to 51.

This difficulty is more serious in comparing home ores and imported ores than it is in comparing the various home ores with one another, since these are all relatively low in iron content.¹ It appears from a comparison with Table 8 that the differences in the prices of these home ores between the various producing countries of western Europe are even greater than in the case of coal. Expressed per ton of iron content, the average price of home ores delivered at blast-furnaces comes to about \$6 in the United Kingdom,² roughly \$8 for Lorraine and Luxembourg ores, and about \$16 in western Germany. The wide margin between the prices of Lorraine and of western German ores at the mine corresponds approximately to the differences in labour productivity between the two areas, whether

based on pre-war or on post-war comparisons.³ The differences in the delivered prices would be still greater than it is but for the fact that the German home ores benefit by extremely low freight charges. Even on the basis of present freight rates Lorraine ore, at present production costs, could be delivered in the Ruhr at a price per ton of iron content about \$2 less than the delivered price of German ore and thus yield substantial economies to the German steel industry.

Except in western Germany, the delivered costs of home ores in the major steel-producing countries of western Europe are substantially lower per unit of iron content than the costs of imported ores, which are fairly close to one another, varying between about \$13.40 for Swedish ores and \$17.50 for Newfoundland ores (c.i.f. United Kingdom ports). Transport is, of course, a principal element in the cost of imported ores,

¹ While the German ores are delivered to blast furnaces partly in concentrated form, the price shown per ton of iron content at blast furnace is exclusive of the cost of concentration and also of the value of manganese contained in the ores.

² The very low price of United Kingdom ores is partly due to the fact that they are extracted by open-cast quarrying.

³ See *European Steel Trends in the Setting of the World Market*, Steel Division, Economic Commission for Europe, Geneva, 1949, page 48.

QUANTITIES, PRICES AND COSTS OF PRINCIPAL MATERIALS

Quantities (*Q*) are amounts in tons consumed in
 Prices (*P*) and transport costs (*T*) are expressed in dollars, based on 1950
 Costs (*C*) are thus $Q(P+T)$, expressed in dollars per ton

Pig-iron producing country	Coke, by origin							United Kingdom	Western Germany	Lorraine
	United Kingdom	Western Germany	France	Saar	Belgium	Netherlands	Total, including unspecified			
United Kingdom	Q 1.051						1.051	1.301		
	P 9.92							0.98 *		
	T 1.31							0.84		
	C 11.23						11.23	1.82		
Western Germany	Q 0.984						0.984		1.442	
	P 10.00							4.40		
	T 0.71							0.53		
	C 10.71						10.71	4.93		
France	Q 0.366	0.485	0.102	0.023	0.027	1.021			2.507	
	P 10.78	13.44	14.59	13.66 <i>d</i>	11.45 <i>d g</i>				1.94	
	T 4.85	2.41	1.32	1.11	3.10 <i>g</i>				0.86	
	C 15.63 <i>h</i>	15.85	15.91	14.77 <i>h</i>	14.55 <i>h</i>	15.72			2.80	
Saar	Q 5.72	7.69	1.62	0.34	0.39	16.05			7.02	
	P									
	T									
	C									
Belgium	Q			0.954			0.954		0.036	2.296
	P									
	T									
	C			13.65			13.65		8.73	1.71
Luxembourg	Q 0.879				0.809		0.809		0.34	6.60
	P 13.93				15.10					
	T 1.92				0.80					
	C 15.85				15.90		15.90			
	Q 13.93				12.86		12.86			
	P									
	T									
	C									

a Figures in italics are used to designate prices quoted at frontier or port of the receiving country and transport costs from that point to area of consumption. Figures in Roman type are used to designate prices at point of origin and transport costs from that point to area of consumption. Prices shown in the "total" columns are weighted averages obtained by dividing

total costs by total quantities.

b For estimates relating to sinter, see Appendix, pages 43 to 51.

c Algeria, Tunisia, French Morocco.

d Average January-April 1950.

e Decem

f Average

g Price

h The

PRINCIPAL MATERIALS CONSUMED IN PIG-IRON PRODUCTION

ons accumulated in 1949 per ton of pig-iron produced.

^a Calculated in dollars, based on quotations or estimates for April 1950.

, extra dollars per ton of pig-iron produced.

Iron ore ^b , by origin							Scrap	Total ore, coke and scrap costs	Pig-iron producing country
France		Luxem- bourg	Sweden	French North Africa ^c	Spain Sp. Morocco, Sierra Leone, Newfoundland	Total, including unspecified	Total		
West- ern Germany	Lorraine	Western France							
1.442		0.035		0.295	0.217	0.264	2.124	0.084	Q P T United Kingdom
		6.02		8.46	8.09	8.01			
		0.49		0.49	0.49	0.49			
		6.51		8.95	8.58	8.50	4.44	7.58	
4.40 0.53 4.93		0.23		2.64	1.86	2.24	9.45	0.64	C Q P T Western Germany
		7.92 ^d	2.63 ^e	8.67	8.52 ^f	9.25			
		0.59	1.46	0.59	0.59	0.59			
		8.51	4.09	9.26	9.11	9.84	5.72	17.38	
7.11		0.08	0.07	2.37	0.07	0.31	10.20	4.14	C Q P T France
		2.507	0.085		0.023		2.624	0.172	
		1.94	3.22		7.95			12.49	
		0.86	2.60		1.80			1.55	
0.036		2.80	5.82		9.75		2.96	14.04	C Q P T Saar
		7.02	0.49		0.22		7.76	2.41	
		2.290	0.136				2.462	0.228	
		8.73	1.71	3.22				12.49	
9.53		0.80	1.17	3.14				0.90	C Q P T Belgium
		2.88	6.36				3.17	13.39	
		0.34	6.60	0.86			7.80	3.05	
		0.963	0.083	0.346	0.400	0.023		0.265	
2.14 2.54 4.68 4.51		6.00	1.94 ⁱ	7.64	8.72 ⁱ			18.00 *	C Q P T Belgium
		0.80	2.00	0.90	0.90			0.80	
		6.80	3.94	8.54	9.62		5.55	18.80	
		0.56	1.36	3.42	0.22		10.28	4.98	
1.116 2.10 0.20 2.30 2.57		1.137	0.406				2.659	0.144	C Q P T Luxembourg
		1.94 ⁱ	7.64 ^j						
		0.20	2.50 ^j						
		2.14	10.14				3.43	18.00 *	
2.57		2.43	4.12				9.12	2.59	C Q P T Luxembourg
								27.85	

• December 1949.

Average May-June 1950.

8 Price at and transport costs from Netherlands-Belgian frontier.

h The delivered prices shown are based on prices charged by the supplying

countries plus transport costs only and do not take into account the equalization of prices through the Caisse de Compensation.

i Average for year 1949.

j C.i.f. price Antwerp am

J C.i.f. price Antwerp and transport from Antwerp.

amounting in the case of imports from Newfoundland to about half the price c.i.f. delivered at British ports.

It is uncertain how much of the difference between prices of home and of imported ores represents the normal premium paid because of the economies and other advantages in the use of richer ores (apart from the difference in iron content as such). Part of the spread is undoubtedly attributable to price controls and the insufficiency of home ore production in the United Kingdom, to the decrease since the war in the amount of ore imported from France by neighbouring countries, to the special urgency in post-war years of increasing blast-furnace output by using richer ores, and to the relatively greater increase since the war in the price of coke than in the price of iron ore in most markets, thus increasing the preference for richer ores.¹

The Costs of Scrap

While the greater proportion of scrap is used directly in steel-making, scrap is also one of the major cost items in pig-iron production. At least for the time being, its relative importance in the production of pig-iron is much larger than before the war, the amount consumed per ton of pig-iron produced having increased, on the average, from about 70 kilogrammes in 1937 to 162 kilogrammes in 1949 in the six principal iron and steel countries of western Europe. It may be assumed, however, that consumption will recede to something closer to the pre-war average as the abnormally large supplies resulting from war-time destruction in Europe are exhausted.

Scrap prices are controlled in most western European steel-producing countries, and are especially low in the United Kingdom where the average for blast furnace grades is only about \$7.60 per ton. Even in countries where it is not controlled, as in Belgium and Luxembourg, the price (averaging around \$18.00 per ton in April 1950) has been sufficiently favourable in relation to that of iron ore and coke to induce a substantial increase in blast furnace use.²

The Raw-material Costs of Pig-iron Production

On the basis of the amounts of coke, iron ore and scrap consumed and of their average prices, estimates

¹ The absolute shortage of coke was an additional factor in earlier post-war years tending to sharpen the demand for rich ores as well as for scrap, but the shortage was generally alleviated in 1949.

² Scrap prices in Belgium and Luxembourg are, however, subject to wide fluctuations. Prices as of April 1950 in the different countries considered are given in Table 10.

have been made of the current structure of raw-material costs in the production of pig-iron in each of the principal western European producers. The data are set out in detail in Table 10, showing, for each of the six countries, the average amounts and costs of the materials employed to produce one ton of pig-iron, separate estimates being made in each instance for ores and coke of different origins. The prices used are those for April 1950, and, since comparable consumption data for 1950 are not yet available, they have been applied to the actual consumption figures for 1949. The methods and sources employed, together with the qualifications necessitated by the difficulties encountered in obtaining adequate and comparable information, are explained in an Appendix.

It will be noted from the summary analysis in Table 11 that coke, although varying in importance from one country to another, is, in all cases, the largest cost item of the three materials. It is also the most stable in point of quantity consumed, the amount being generally of the order of one ton of coke for one ton of pig-iron produced, except in Belgium, where the ratio is significantly lower. The tonnages of iron ore and scrap and also their relative importance in the cost structure vary more widely. They are, within limits, substitutes for each other, although, in all of the instances covered, iron ore weighs at least twice as much as scrap in the total costs of the three materials.

Since the war, certain major factors have influenced the relative quantities of the three materials used and their weight in the total cost structures in the different countries. One of these has been the substantially greater increase since pre-war in coke prices in most countries, compared with the prices of iron ore and scrap, which may be seen in Table 12. A second principal factor has been the greater availability of scrap than of iron ore in most countries compared with pre-war.

These changes in the supply and price position are largely responsible for the inter-related decline in coke and increase in scrap consumption in most countries compared with pre-war, together with increased imports of richer ores in several instances. However, factors more or less peculiar to the position of each country also influence the proportions in which the various materials are utilized. In the United Kingdom, for instance, the desire to maximize blast furnace

Table 11

SUMMARY OF RAW MATERIAL COSTS IN PIG-IRON PRODUCTION

Costs per ton of pig-iron produced in dollars at April 1950 prices and exchange rates ^a

Country	Total 1949 production of pig-iron (thousands of tons)	Coke costs		Iron-ore costs		Scrap costs		Total costs of coke, iron ore and scrap
		Dollars	Per cent of total	Dollars	Per cent of total	Dollars	Per cent of total	
United Kingdom	9,645	11.81	54	9.44	43	0.64	3	21.89
Western Germany	7,140	10.54	42	10.20	41	4.14	17	24.88
France	8,345	16.05	61	7.76	30	2.41	9	26.22
Saar	1,582	13.02	55	7.80	33	3.05	13	23.88
Belgium	3,748	12.86	46	10.28	37	4.98	18	28.13
Luxembourg	2,372	16.14	58	9.12	33	2.59	9	27.85
Weighted average for six countries .		13.10	53	9.17	37	2.60	10	24.88

^a See Table 10.

Table 12

INDEX NUMBERS OF PRICES OF COKE, IRON ORE AND STEEL SCRAP, 1937 TO 1950

1938 = 100

Country and commodity	Type of Price	In national currencies			In dollars		
		1937	Jan. to Sept. 1949	Jan. to June 1950	1937	Jan. to Sept. 1949	Jan. to June 1950
Sweden Ore	Export	81	128	159	82	141	122
Belgium Coke	Domestic	99	348	350	99	233	211
Scrap	Export	146	322	275	146	216	161
France Coke	Domestic	76	2,330	2,330	106	303	232
Ore	Domestic	98	1,068	1,068	137	139	106
Scrap	Domestic	114	1,353	1,336	157	175	133
Germany ^a Coke	Domestic	100	221	221	100	164	130
Ore	Domestic	100	238	238	100	177	140
Scrap	Domestic	100	174	174	100	130	103
United Kingdom . . . Coke	Domestic	106	207	211	108	171	121
Scrap	Domestic	99	110	111	99	90	63
United States . . . Coke	Domestic	111	381	365	111	381	365
Ore	Domestic	98	144	153	98	144	153
Scrap	Domestic	135	209	212	135	209	212

NOTE. — An attempt has been made to show prices of the basic materials entering into pig-iron production. For scrap, however, it has been necessary to show quotations for steel-making grades in lieu of data for blast furnace scrap.

^a Pre-war years refer to the whole of Germany post-war years refer to the western zones of Germany only.

output appears to have been one of the principal reasons for the relative shift from leaner domestic ores to imported ores, while scrap consumption in pig-iron making has remained small, despite its extremely low controlled price, since all except the poorer qualities of scrap are fed directly into its open-hearth steel furnaces. The maintenance of the controlled price of coke at a relatively low level in the United Kingdom may have diminished the incentive to reduce coke consumption, which is the highest among the western European countries covered in the analysis and some 30 per cent greater per ton of pig-iron produced than in Belgium.

In France, coke consumption per ton is also relatively high because, apart from increased consumption of scrap, pig-iron production has relied wholly on the lean but relatively inexpensive French ores. As a result, the cost of iron ore consumed in pig-iron production in France is relatively low and that of coke relatively high among the countries shown.

In Germany, the domestic price of coke has risen somewhat less than that of its domestically produced iron ore, while scrap has been abundant and has increased very much less in price than the other two products. As a result, scrap consumption in blast furnaces has been extremely heavy, but despite this, the cost of iron ore used per ton of pig-iron is relatively high, while that of coke remains the lowest within the area.

The final results of the estimates indicate that the raw-material costs of pig-iron production are lowest in the United Kingdom at a total cost of slightly less than \$22 for the iron ore, coke and scrap used to produce a ton of pig-iron. The explanation of these relatively low costs lies essentially in the fact that the United Kingdom is wholly self-sufficient in coke, as well as in blast furnace scrap ; it meets a substantial part of its iron-ore requirements ; and it has succeeded in keeping the home prices of these domestically produced materials at very low levels compared with other European countries.

At the other end of the scale, Belgium and Luxembourg show the highest raw-material costs at around \$28 per ton of pig-iron produced, largely because of

the high unit cost of coke in these countries despite the savings in the volume of coke consumption which Belgium has been able to make through a greatly increased use of scrap and through imports of rich Swedish ores.

Western Germany and France are in an intermediate position in the scale of raw-material costs, the advantage of the one in coke being partly offset by the advantage of the other in iron ore.¹ The costs in the Saar are a little lower, since its coke position is more advantageous than that of France, while it benefits as compared with western Germany by cheap ore from the adjacent Lorraine.

The analysis thus shows clearly enough the key importance of coke in those countries whose production of metallurgical fuels is deficient and high-cost, as in France and Belgium, or which are wholly dependent on imports, as in the case of Luxembourg. There would seem to be room for substantial economies in pig-iron production in these areas if their coke requirements could be met more fully, and on the basis of equal price and transport treatment, from the low-cost producers, especially western Germany.

The analysis also shows, on the other hand, the cost-raising effects in western Germany of its extensive use of poor-grade domestic ores, which, from a long-run point of view, appears to be one of the most irrational uses of raw materials in western Europe. These effects are obscured in the estimates, moreover, by the disguised subsidies to domestic ore production in the form of extremely low freight rates on the German railways and by a temporary factor—the current high rate of scrap consumption in western Germany. The use of scrap has, in fact, tended to bridge over, for the time being, some of the basic difficulties facing not only western Germany but also other ore-deficient countries, especially Belgium, and the eventual return of scrap consumption to more normal proportions, both in pig-iron production and at the steel-making stage, will raise in more acute form the need to expand low-cost iron ore production in France.

¹ The estimates for France relate to the country as a whole. It appears that costs in the Lorraine area taken separately may be lower than in other regions of the country.

4. FINISHED STEEL PRICES

While a freer exchange of basic materials would undoubtedly produce substantial economies in the production of pig-iron, it is impossible, without advance knowledge as to the behaviour of supplies and prices under a unified market, to say how it would affect relative pig-iron costs in the western European countries. It is even more difficult to foretell the effects of such economies on the relative costs of the different steel producers. Information on the costs of the various processes in the steel industry is extremely deficient, although it is clear that the cost structure varies widely as between the different countries. Pig-iron is the preponderant cost element in the production of crude steel by the Thomas process, but less so in the Martin process, where scrap, fuel and labour costs represent a substantial part of the total. The variation between countries is indicated in Table 13, which shows Luxembourg at one extreme using five times as much pig-iron per ton of steel and only one-thirteenth as much scrap as the Netherlands at the other extreme. It would seem from this both that present costs would vary substantially from one country to another and that the relationships between them are likely to change very much when the abnormal amounts of scrap left by the war are used up. Further changes may be caused by changes in labour costs, the importance of which increases in the course of processing from crude steel to more finished rolled products.¹

Table 13
PIG-IRON AND SCRAP CONSUMED
IN CRUDE STEEL PRODUCTION IN 1949
Kilogrammes per ton of steel produced

Country	Pig-iron ^a	Scrap
Luxembourg	1,034	71
Belgium	947	154
Saar	882	219
France	781	312
Western Germany	654	429
United Kingdom	456	629
Italy	213	875
Netherlands	208	945

^a Excluding ferro-alloys.

¹ For a more detailed discussion of the structure of steel costs, see *European Steel Trends in the Setting of the World Market*, Steel Division, Economic Commission for Europe, Geneva, 1949.

Lack of information on the conditions of steel-making in European countries makes it impossible to analyse steel costs in the way that coal and pig-iron are dealt with above. The prices of steel products, a selection of which is presented in Table 14, are only very loosely related to costs. In a freely competitive market, steel prices would show a fairly close uniformity (except for differences due to transport costs) regardless of the actual average costs of different producers.²

In addition, quoted prices may differ substantially from actual prices, and international comparability is impaired both because the products may differ in specification from one country to another and because the products quoted may be less typical of production in one country than in another.

In view of these reservations and of the variable cost factors that intervene between pig-iron and steel production, it may be little more than a coincidence that the price quotations available for billets, which are nearest to the crude steel stage, conform more or less to the differences which have been observed in the costs of pig-iron production among western European countries. Thus, the British price for billets is relatively low and the Belgian price relatively high, with Germany in between. France, on the other hand, shows a curious combination of very low prices for Thomas billets and high prices for Martin billets.³

² Because of this, the data presented in Table 14 may have a closer relationship to costs than would be true in a free market since, with the exception of the United States, the figures all represent controlled prices, which are presumably not widely divergent from average production costs, although the criteria employed in price-fixing would be different from one country to another. It is largely for this reason that the prices given for Belgium are those for October 1949, after which time controls were lifted. The following data indicate, however, that the free market prices in Belgium had not changed greatly up to the beginning of July 1950.

Item	Belgian francs per metric ton	
	Controlled October 1949	Free market 1 July 1950
Bars	3,050	2,800
Wire rods	3,150	3,200
Hoop and strip	3,450	3,450
Plates	3,340	3,200

³ It is interesting to observe that, throughout the range of products listed, the margin between Thomas steel and Martin steel prices in France, ranging from \$7 to \$10, is very much greater than that in Germany, where the spread does not exceed about \$1.50. This appears to reflect the variable premium which Martin steel commands over Thomas steel in different countries, rather than differences in costs, a factor which further illustrates the difficulty of using prices as a guide to costs.

Table 14
STEEL PRICES IN WESTERN EUROPEAN COUNTRIES AND IN THE UNITED STATES

Dollars per ton

Country	Type of steel	Billets	Heavy rails	Heavy sections	Bars	Wire rods	Hoop and strip	Plates	Sheets
United Kingdom .	Martin	43.61	52.70	51.46	58.70	55.43	60.77	54.36	76.61
Western Germany .	Martin	46.67	..	..	55.00	..	..	57.14	72.62
	Thomas	45.24	55.72	52.62	53.57	54.53	62.86	55.72	71.43
France	Martin	50.22	..	64.02	66.88	69.14	71.11	80.68	97.14
	Thomas	42.93	62.79	54.27	59.25	60.13	61.13	71.82	86.54
Belgium	Thomas	47.00	68.00	57.20	59.00	61.00	67.00	64.80	81.00
Italy	Martin	..	..	99.20	102.40	89.60	..	108.80	..
Netherlands . . .	Martin	..	..	64.21	62.11	72.11	76.84	72.63	84.47
United States . . .	Martin	58.42	74.96	74.96	76.06	84.88	71.65	77.16	73.86

NOTE. — European steel prices are July 1950 quotations, with the exception of those for Belgium, for which it has been considered preferable to give the controlled domestic price for October 1949, controls being abolished after that period. United States prices are those in effect at the end of June

1950. The prices are f.o.r. producers' works in the United States; are adjusted to approximately this basis for the United Kingdom and Belgium; and are basing-point prices for western Germany, Italy, the Netherlands and France. For further details, see Appendix, pages 43 to 51.

The apparent price advantage of the United Kingdom as compared with Germany at the crude steel stage is not maintained in the more advanced products, as far as may be judged from the data given for Martin steel in the two countries. This may reflect the increasing weight of the lower German wage rates in the higher stages of production, although price quotations for Martin steel in both countries are considerably lower than in France. In Thomas steel also, German prices are significantly lower than those in France as well as in Belgium, and here, too, there is the same lowering of German prices in the more advanced stages of production. It may be repeated, however, that the validity of any comparisons of price differentials at the various stages of production is particularly subject to the warning already given. The extremely high prices in Italy would appear to reflect the cost disadvantages in that country resulting from its poor position with respect to supplies of raw materials, the effect of which is reinforced by its vulnerability to discriminatory pricing by suppliers of the fuel and other materials which it imports, by the partial destruction and disruption of its steel industry during the war, and by the cumulative weight of the turn-over tax as applied in Italy at each stage of production.

At present rates of exchange,¹ European steel prices, except in Italy, would appear to be competitive in general with the United States, except for sheets. European billets are generally from 20 to 25 per cent lower than in the United States, especially if, for France, Thomas rather than Martin steel is taken as the representative price. It is interesting to observe, moreover, that in some instances the spread between the billet price and the prices of the more finished products is distinctly lower in Europe than in the United States. This is particularly true with regard to rails, heavy sections and wire rods in the United Kingdom, for heavy sections, bars, wire rods and universal plates in western Germany, and for heavy

¹ The effect of depreciation in September 1949 on the competitive position of European compared with American producers is indicated by the relative changes in prices in the United Kingdom and in the United States (the absolute levels not necessarily being comparable because of differences in type and specification):

Country	Dollars per long ton	
	1949 (average)	1950 (average)
United Kingdom (bars, blooms, and billets)	63.7	47.1
United States (open-hearth steel billets, Pittsburgh)	52.0	54.0
(Data from <i>International Financial Statistics</i> , International Monetary Fund, Washington, D.C.)		

sections, bars, and wire rods in Belgium. One cannot be sure from these comparisons whether the narrower spread indicates that the relative efficiency of some rolling-mills is as high in Europe as in the United States, given the higher wage costs in that country. What is indisputable, however, is that the United States is much more efficient in the production of sheets. These are very much cheaper in the United States in relation to the billet price than in any of the European countries shown.

The relative efficiency of the United States in sheets and other thin flat products, which alone account for over 35 per cent of American crude steel consumption, largely reflects the rapid expansion of continuous-strip mills in the United States during the last fifteen or twenty years, and points to the far-reaching opportunities for economies of large-scale production through rationalization and specialization in western Europe. The two large continuous-strip mills established in France since the end of the war, for instance, might

be expected to yield considerable economies if they can serve a large unified market in western Europe, but would provide much more limited advantages if their output is confined essentially to the domestic market. In the one case, they could concentrate on the production of a few standard products, while in the other case, they would have to produce a much wider range of products. Similar economies in steel costs might be achieved if the production of tubes and rods were more concentrated in western Germany, which has already developed considerable specialization in these products, and if Belgium were provided with a large market for the more standard rolled products in which it has developed a relatively high efficiency. Indeed, while detailed analysis is impossible, it seems safe to say that the unification of iron and steel markets in western Europe would yield its greatest advantage by enlarging the consumer's choice of sources of supply and thereby promoting the specialization of production.

5. THE PROBLEM OF TRANSPORT COSTS

One of the most important distorting factors in the structure of costs and, consequently, one of the major obstacles to a more rational distribution of western European production is undoubtedly to be found in the field of transport charges. This is not to say that railway freights on coal and on materials and products of the steel industry are, in general, too high. The actual costs involved in the transport of different commodities over the same lines cannot be isolated, from a cost-accounting point of view, and it would be difficult to determine, except in extreme cases, whether or not freight tariffs discriminate either against or in favour of the products of one industry as compared with another. It must be remembered, moreover, that railways in most countries are at present barely covering their costs of operation or running deficits, and that any general reduction in freight charges on coal or iron ore traffic, for instance, would necessitate either increased government subsidies to the railways or higher freight charges on other commodities. There is no case in principle, therefore, for reducing the general level of freight charges, and, in view of the importance in most countries of receipts from heavy traffic, there appears to be little probability that the rates for the transport of coal, iron ore and steel could readily be eased and the burden shifted

to other commodities, even if it could be demonstrated that such an adjustment would be more in line with the real costs of transport.

The relevance of the transport factor to the present problem lies rather in the discriminatory effect of present freight tariff policies as between internal and international traffic and also in what seems to be a tendency in some countries to favour transport by rail as against water and thus to lose the economic advantages of water transport for heavy traffic. Discrimination by the railways in favour of domestic transport arises in at least two important ways. The most obvious is the practice, especially in Germany, of granting low preferential tariffs in specific cases as an indirect subsidy to production, thereby distorting the relative costs of materials of different origins. The second and more general factor of discrimination is that shipments across international frontiers are commonly subject to "split-tariffs", which make international transport considerably more expensive than domestic transport over identical distances. This is because the artificial division of the distance travelled into two or more parts for purposes of tariff calculation tends to deprive international shipments of the benefit of the strongly regressive or tapering character of freight rates as distance

increases. A further element affecting the cost of international as compared with domestic traffic in the particular case of France is that, at present, imports over land frontiers do not benefit by the "complete trains" tariff provision, under which discounts from the regular tariff rates are granted to the extent of 20 per cent and up, depending on the tonnage and frequency of the traffic.

The influence of the split-tariff factor is illustrated by the relative costs of transporting coal and coke to the steel industry in Lorraine from northern France and from the Ruhr. The distance from the points of production to destination is, as previously noted, about the same in each case, yet the cost of transporting the French product under the existing French rail tariff, including the "complete trains" provision, is about \$3 per ton, whereas the cost of carrying Ruhr coal and coke to Lorraine is only slightly less than \$5 per ton over the German and French railway lines, given the existing split-tariff factor, and is greater still over the alternative route across Luxembourg. If either the German tariff or the French tariff were applied all the way through on the Ruhr-Lorraine traffic, this discrepancy would be eliminated, although this might well entail some compensating increase in the regular freight rates for coal and coke on both sides of the frontier and not simply a reduction in the transport charges on German fuels sent to Lorraine.

The incidence of the first distorting factor mentioned above with regard to railway charges—that of preferential rates—is illustrated by the fact that coal and coke shipments from the Ruhr to Salzgitter, a distance only one-fifth less than that from the Ruhr to Lorraine, are tariffed at less than \$1.50 per ton.

Rail transport charges on shipments of iron ore from Lorraine to the Ruhr, although this traffic has been at a standstill since the war, would cost under existing freight tariffs approximately \$2.70 per ton (of which \$1.00 is for some 50 kilometres on the French portion of the route and \$1.70 for the 300 kilometres on the German section). This does not appear to be substantially in excess of the transport charges on Lorraine ore moving about the same distance to the iron and steel industry in northern France, and freight rates alone, therefore, do not appear to impose any special obstacle to iron ore exports from the Lorraine area. The incidence of preferential domestic rates on the German side is, however, very strong in this case also. In the most extreme case, the south German

iron ores travelling some 500 kilometres to the Ruhr are tariffed at about \$1 per ton, while the freight charge for the closer Salzgitter ores (280 kilometres from the Ruhr) and Siegerland ores (165 kilometres from the Ruhr) is only about \$0.70.

It is clear from these examples that the introduction of a more uniform system of transport charges among the various countries would radically alter the existing relationships between the costs of products coming from different sources and hence their competitive position in different consuming areas. The introduction of such a system meets, however, with extraordinarily great difficulties, since labour and other operating costs of the railways diverge substantially from country to country, and since the national rail tariff structures vary widely with respect to their general levels, relative charges on different commodities, their regressive nature with regard to distance, special discounts for volume and regularity of traffic, and other features.¹

It has been suggested above that the elimination of existing anomalies in railway freight tariffs would have the effect of removing differentials which favour domestic transport at the expense of international transport and thus help to promote a more rational use of resources, but that this would not necessarily serve to decrease the total burden of the freight charges borne by the heavy industries of the various countries. There is at least one instance of major importance, however, where a more balanced flow of primary goods should permit a general lowering of railway freight costs. This is in the case of the interchange of French iron ore from Lorraine and German coal and coke from the Ruhr. One of the great natural advantages underlying the development of heavy industry in these areas before the First World War was the possibility of two-way traffic, utilizing the same wagons for the transport of French ore in one direction and German coal and coke in the other. At present this traffic is entirely one-way, there being no shipments of iron ore from Lorraine against the substantial tonnages of metallurgical fuels imported from the Ruhr. A fuller and more balanced utilization of carrying capacity through expanded French iron ore exports could therefore result in reduced transport charges on the freight moving in both directions.

¹ These features make it extremely difficult to compare railway freight charges in different countries, and some of the estimates presented in the text must therefore be regarded as provisional and tentative.

Potentially still greater transport economies in the interchange of Lorraine iron ore and Ruhr coal and coke might be possible if any of the long-discussed projects for improving water connections between the Lorraine and Saar area and the Rhine were ever brought to fruition, providing a direct all-water route between the great iron and coal fields. The Rhine alone has been little used for this traffic, since transhipment and a considerable haul by rail are in any event necessary at present and since, as mentioned in Section 2 of this article, western Germany now pena-

lizes this traffic in favour of its railways by imposing a substantial surcharge on coal and coke exported to France by inland waterway. An assessment of the economic possibilities of a more efficient utilization of water transport, by sea or inland waterway, would extend beyond the limits of the present analysis, but it also appears anomalous that the substantial tonnages of iron ore exported from the French mines in Normandy to Belgium move over long distances by rail, whereas the development of coastal transport would seem to be feasible and more economic for these heavy cargoes.

* * *

Apart from the substantial advantages that might be achieved through greater specialization at the finishing stages of steel production, which the present analysis has not attempted to explore, the benefits of a unified market for western European coal and steel industries would be found chiefly in a freer and more active trade in the basic materials, coal, coke and iron ore. The expansion of production of these goods in low-cost areas should serve to lower coal and steel costs generally and to release resources of man-power and capital which, in a progressive economy, could be more effectively employed elsewhere. On the basis of present differences, the most significant economies would seem to lie in a replacement of coal production in the higher-cost areas of Belgium and France by more coal from the Ruhr and in greater production and use of French iron ore in place of the high-cost production in western Germany.

An increased inter-flow of these materials would, of course, work towards some narrowing of present differences in costs and prices, since they would presumably tend to rise to some extent in low-cost areas as production expanded and to fall in high-cost areas as production contracted.¹ This narrowing of cost differences only means, however, that there would be limits to the amount of displacement induced and not that existing differences in costs are irrelevant. Limits to the amount of such displacement in high-cost areas would be set both because lower-cost producers within such areas should be able to expand their output and because the less efficient producers might be expected to find ways of reducing their costs.

¹ Cost relationships would also be affected, of course, by any future changes in exchange rates.

In coal and coke, as well as in iron ore, the problem seems indeed to be much more one of expanding low-cost production and of further reducing costs wherever possible rather than one of simply substituting the production of one country for that of another. A renewed shortage of coal and coke is likely to be the chief concern in the near future, as it had been during most of the time since the war until fairly recently. In the face of rising demand, the continued failure of the main coal producing and exporting countries to achieve a fuller measure of recovery in production, together with the priority given to their home demand, may make it impracticable for the time being to aim at any reduction in high-cost production elsewhere. As the recent changes in the coal supply position have shown, however, the margin between scarcity and surplus is small in relation to production, and there is no basic reason why, over a longer period, substantial economies in coal costs in high-cost areas should not be possible.

For the longer run, the problem of iron ore supplies may prove to be much more difficult than that of coal. If conditions of economic expansion are maintained, it seems reasonable to expect, as the various national plans imply, that steel production by the major producers of western Europe will rise to at least 55 to 60 million tons in the next five or ten years, compared with some 47 million tons in 1937 and a little less than 45 million tons in 1949.² This would probably require at least 8 to 12 million tons more iron ore, in terms of ferrous content, than the amount consumed by these countries in 1949—an increase of about 30 to 40 per cent—even if scrap consumption should be

² Figures cover Belgium, Luxembourg, France, the Saar, western Germany, the Netherlands, and the United Kingdom.

maintained at a somewhat higher ratio than before the war. On a natural weight basis, assuming roughly the pre-war proportions of rich and lean ores, the increase would be in the order of 20 to 30 millions tons of ore. The source of these large additional tonnages is not readily apparent, particularly when it is remembered that the demand of other countries is also increasing in competition with that of western Europe. For example, last year about 30 per cent of Sweden's total exports, or 2.4 million tons on a ferrous content basis, was sold outside western Europe, chiefly to the United States, Poland, and Czechoslovakia. Under these conditions, the amount of expansion needed in the production of low-cost ores would be very great indeed if, in addition to meeting the over-all increase in consumption requirements, a substantial part of the high-cost ores in western Germany is to be displaced.

The expansion of production both of coal and of iron ore by the low-cost producers appears to depend largely on questions of policy and the appraisal of future market prospects. Substantial increases in coal production in the Ruhr and in iron-ore production in France and Sweden would necessitate heavy investment in the mines, as well as in transport and housing, and the recruitment of additional labour at a time when resources of capital and man-power are subject to many competing claims. If these investments are to be made, some positive assurance regarding continued and unrestricted access to markets in the importing countries would be required, and importing countries would have to be prepared to curtail their higher-cost production to the extent that cheaper supplies were available through imports.

Similarly, if importing countries are to enter into arrangements entailing a reduction in their own production, they need to have much firmer assurances regarding continuity of supplies at reasonable prices than under present conditions, when exports are so readily the victim of the priority given to home demand in the producing country.

The essential problems confronting the creation of a unified market in the coal and steel industries thus concern production and trade policies. It is these policies which need to be changed if any real economies are to be achieved. The correction of artificial price differentials, through the abolition of surcharges on the one hand or subsidies on the other and through the elimination of discriminatory transport charges,

would not necessarily in itself produce any marked changes in the distribution of production or of supplies.¹ Only if the basic conditions for an increased inter-flow of goods are created can changes in price policies further the objectives by ensuring that they are not frustrated through artificial financial inducements, such as those now operating in the case of the preferential tariffs granted by the German railways on home ores.

Unless low-cost areas can achieve very rapid and substantial increases in production, the realignment of prices within a unified market may present difficulties, since the necessity to maintain marginal production would cause prices to rise in the low-cost areas rather than to fall in the high-cost areas, particularly if demand increases. This could be countered by subsidies to high-cost producers, in order to limit the rise in prices, but uniformity of prices achieved in this way is not the same as that brought about by a closer equality in real costs. Subsidies would not, of themselves, tend to reduce real costs but rather to disguise them and thus, unless they are limited in duration and in the extent of the losses covered, to diminish the incentives towards the desired improvement.

An abrupt freeing of the market would undoubtedly create difficulties. Measures may be taken to mitigate these difficulties, but they must not be permitted to obscure the ultimate objectives and hinder their realization. It must be recognized that there remain unavoidable costs that must be borne for the sake of the ultimate benefits of a unified market.

¹ This can be illustrated in the case of exports of German coal to France. For scarce grades like metallurgical coal, the effective limitation on the trade is the amount which the authorities in western Germany are willing to supply. For non-scarce grades such as domestic fuels, the effective limitation is the amount which the French Government import monopoly is willing to take. As compared with the low home price in western Germany, there is a surcharge of about \$1 per ton for exports of both types of coal. The abolition of this surcharge would reduce the cost of coal to the French import monopoly. It would not, however, lead to any increased trade unless the authorities in western Germany were willing to supply more metallurgical coal to France or unless the French authorities were willing to import more domestic fuels. Under present conditions, the first would imply some reduction in allocations of metallurgical grades to the home market in western Germany; the second would mean the curtailment of some high-cost production in France that would no longer be required. In either case, therefore, it is the decision to sacrifice some sectional domestic interest through the allocation of either exports or imports, rather than changes in price policies as such, that are crucial for the achievement of any reduction in real costs of production.

Appendix

SOURCES AND METHODS USED IN THE ARTICLE “THE COAL AND STEEL INDUSTRIES OF WESTERN EUROPE”

I. PRODUCTION AND TRADE IN COAL, STEEL AND STEEL-MAKING MATERIALS (Tables 1 to 3)

I. GENERAL SOURCES

The figures given in these tables were generally derived from publications containing international production and trade statistics on standard definitions and, where these were not available, from national sources. The principal sources used were as follows :

Coal and Coke

General : *Coal Statistics, 1929-1946*, European Coal Organization, London, 1947 ; *Monthly Bulletin of Coal Statistics*, Coal Division, Economic Commission for Europe ; *Study on Coke*, Document ECE/W/COAL/UWP/19, and data on coke production in 1937 supplied by the Steel Section of the Economic Commission for Europe from material due to be published shortly in the first issue of *Quarterly Bulletin of Steel Statistics*.

United Kingdom : *Trade and Navigation Accounts of the United Kingdom*, and *Monthly Digest of Statistics*.

Western Germany : *Statistisches Jahrbuch für das Deutsche Reich* ; *Statistische Übersicht über die Kohlenwirtschaft im Jahre 1937*, Reichskohlenrat ; and official trade statistics. No data were available for the French Zone in 1949, the relative importance of which is small.

Iron Ore, Pig-Iron, Crude and Finished Steel and Scrap

General : Data supplied by the Steel Section of the Economic Commission for Europe partly from material due to be published in *Quarterly Bulletin of Steel Statistics* ; *Bulletin du Comité des Forges de France* for pre-war ; and *Bulletin de la Chambre syndicale de la Sidérurgie française, séries bleues*, for post-war.

United Kingdom : Data on trade in crude steel in 1937 were taken from *Statistics of the Iron and Steel Industry of the United Kingdom for the year 1938*, British Iron and Steel Federation, and all trade data for 1949 were taken from United Kingdom trade statistics.

Sweden : All data on trade in 1949 were taken from Swedish trade statistics.

Belgium and Luxembourg : The trade in iron ore of Belgium and Luxembourg both with each other and with other countries, which is not distinguished in the main sources, was calculated on the basis of data on Luxembourg's trade in 1937 and 1949 contained in *Bulletin du Service des Etudes et de Documentation économiques et de l'Office de la Statistique générale*, Grand-Duché de Luxembourg, Vol. 1, Nos. 1-2, 1950.

Western Germany : Consumption of iron ore, coke, scrap and pig-iron in 1949 was taken from *Statistisches Vierteljahresheft*, Außenstelle Düsseldorf, Eisen- und Stahlstatistik, 1950. Figures for the French Zone were based on data for the second half of the year.

2. SPECIAL ESTIMATES

In order to establish the pre-war production, trade and consumption of the area now composing the western zones of occupation in Germany and of the Saar, a number of estimates had to be made owing to the lack of direct data, particularly for trade. Similar estimates had to be made in order to separate the trade of the Saar from that of France in certain of the figures for 1949. The methods of estimation used were as follows :

(i) The figures for the trade of the Saar with Germany and other countries in 1937 were based on : (a) data supplied by the Régie des Mines de la Sarre for coal ; (b) data supplied by the occupation authorities in Germany for pig-iron and crude steel ; and (c) estimates made from information on shipments of coke, iron ore and finished steel contained in the German transport statistics published in *Die Güterbewegung auf deutschen Eisenbahnen im Jahre 1937*, and *Die Binnenschifffahrt im Jahre 1937*, respectively, Vols. 522 and 523 of *Statistik des Deutschen Reichs*.

(ii) The trade of the western zones of occupation with the rest of pre-war Germany in 1937 was estimated on the basis of the German transport statistics, *ibid.*, or on the basis of figures previously derived from the same sources and published in *Economic Bulletin for Europe*, Economic Commission for Europe, Vol. 1, No. 3.

(iii) Data on the production of the western zones in 1937 were available from the main sources listed above except for finished steel, for which they were taken from *Vierteljahrshefte zur Statistik des Deutschen Reichs* 1938.

(iv) Data on consumption in 1937 of the various raw materials for western Germany and for the Saar were taken, in certain cases where no other data were available, from *Vierteljahrshefte zur Statistik des Deutschen Reichs*, *op. cit.*

(v) Apparent consumption and total exports of finished steel in the Saar in 1949 were estimated on the basis of published information on plans. Exports to Germany were estimated on the basis of German transport statistics, and to other countries by taking into consideration the exports of the Saar before the war. French trade was correspondingly adjusted.

II. PRODUCTIVITY, COSTS AND PRICES IN COAL MINING (Tables 4 to 7)

I. PRODUCTIVITY, COSTS AND PRICES IN COAL MINING, FIRST HALF OF 1950 (Table 4)

The figures for production and output per man-shift were taken from *Monthly Bulletin of Coal Statistics* and *Monthly Coal Statistical Summary*, Coal Division, Economic Commission for Europe. The figures for labour costs per man-shift in 1950 were obtained by applying an allowance for changes in wages and related costs since 1949 to the figures given in Table 5, of which the sources are described in the next section. Labour costs per ton in 1950 were then obtained by combining these two series.

Labour Costs

While data on output per man-shift in the first six months of 1950 were used in order to eliminate the effect of short-term fluctuations in productivity, the adjustment to wages was made by comparing figures in June 1950, or the nearest possible date, with the figures for the year 1949 in Table 5. This calculation of the movement of wages between 1949 and 1950 showed the following results :

Country	Period considered 1950	Increase over 1949 (per cent)
		February
Belgium	February	—
France	Second quarter	14
Western Germany	May	13
Netherlands	Average first half	7
Saar	Second quarter	4
United Kingdom	Second quarter	2

The information on which the movement of wages was calculated was derived from the following sources :

Belgium : Information on wages and social charges in February 1950 was supplied by the Administration du Combustible et de l'Energie, Ministère des Affaires économiques et des Classes moyennes.

France : Information on labour costs per ton in the second quarter of 1950 was supplied by the Charbonnages de France. An adjustment was made in order to take into account the average level of productivity in the first six months of 1950, the period considered for other countries.

Western Germany : Information on wages and social charges in May 1950, originating from the Deutsche Kohlenbergbau-Leitung, Essen, was communicated to the Secretariat. An adjustment was made to holiday pay, which was abnormally high in that month.

Netherlands : Information on the movement of basic wages (*i.e.* excluding allowances and social charges) for underground workers only was supplied by the Central Planning Office.

Saar : Information on basic wages and social charges in the second quarter of 1950 was received from the Régie des Mines de la Sarre.

United Kingdom : *Quarterly Statistical Statement of the Costs of Production, Proceeds and Profits of Collieries*, National Coal Board, shows labour costs (wages, allowances in kind, and holiday pay) per ton of coal in the second quarter of 1950 and the year 1949. From the known increase in productivity the average increase in labour costs per shift could be derived.

Prices and Total Operating Expenses

The figures for average pithead prices refer to the average prices of coal sold. Actual pithead receipts may be more or less if subsidies are received or taxes paid on the quantities sold.

The figures for total operating expenses refer to expenses per ton of coal raised and not to the tonnage commercially disposable. The cost of coal consumed at mines is therefore included. While adjustments have been made in order to exclude provisions for interest payments and amortization (for which accounting practices differ from country to country) it did not always prove possible to exclude all taxes.

The following sources were used :

Belgium : *Annales des Mines*, Ministère des Affaires économiques et des Classes moyennes—Institut National de l'Industrie charbonnière, May 1950, Table 14. The expenses shown in that table, which refer to 1949, do not include amortization or interest payments, but do include some expenditure on capital account ("dépenses de premier établissement"). In 1948, this accounted for \$0.67 per ton of coal, and this amount has been deducted from expenses in 1949. In order to arrive at an estimate for 1950, it was assumed that only labour costs changed, and the difference in labour costs per ton between 1949 and the first half of 1950

of \$0.60, as derived from Tables 4 and 5, was therefore deducted. The average pithead price for 1950 was taken from "Le Freinage des Importations de Charbon et ses Résultats", *Bulletin de l'Institut de Recherches économiques et sociales*, Université Catholique de Louvain, May 1950.

France : Information on costs per ton of coal extracted was supplied by the Charbonnages de France. The pithead price is based on a price for 1949 given in *Rapport de Gestion*, 1949, published by the same authority. There was no change in the price in the first half of 1950.

Western Germany : Estimates for 1950 were made on the basis of information for 1949 received from the occupation authorities.

Saar : The figures are based on information supplied by the Régie des Mines de la Sarre.

United Kingdom : Details of costs and pithead receipts are given in *Quarterly Statistical Statement, op. cit.* Depreciation was estimated on the basis of information in *Report and Accounts for 1949*, National Coal Board, and deducted.

2. REGIONAL PRODUCTIVITY AND LABOUR COSTS IN COAL MINING, 1949 (Table 5)

Labour costs per ton of coal were obtained by dividing labour costs per man-shift by output per man-shift (over-all). The figures for output per man-shift exclude clerical workers and workers in ancillary establishments, unless otherwise stated. The figures for France, however, include "dépendances légales".

The figures for wages refer to the basic pay of miners, plus overtime pay and special bonuses. They do not include salaries. Social charges and allowances include holiday pay, coal issued to miners either free or at a reduced price, family allowances, education grants, separation money, etc. In general, social charges thus cover all payments in addition to wages which are associated with labour costs and are a charge to the industry. Hence employers' contributions to social insurance or sickness and injuries schemes are also counted, since they are a cost associated with labour. The part paid into these schemes by the miner does not enter into consideration. Correspondingly, wages are taken before deduction of taxes and contributions.

The degree to which social charges are a burden on the industry varies significantly from one country to another, and the figures in Table 5 do not, therefore, indicate the total scale of social charges and benefits received by miners in the different countries.

The data on production were generally obtained from the same sources as the data on productivity and labour costs, which are as follows :

Belgium : *Annales des Mines, op. cit.*, May 1950, gives regional data on output per man-shift and wages. Supplementary information on social charges and allowances was supplied by the Administration du Combustible et de l'Energie. This information related mainly to February 1950 and to the country as a whole. There were, however, no significant changes between 1949 and February 1950 and it was also assumed that the proportion of social charges to wages was the same in all regions.

France : Regional details of output per man-shift and of wages were obtained from bulletins of the Bureau de Documentation minière, Ministère de l'Industrie et du Commerce. Details of the percentage addition to wages for social charges and allowances in each region, based on an inquiry by the Charbonnages de France, were supplied by the Bureau.

Western Germany : Output per man-shift and basic wages for each region were obtained from *Zahlen zur Kohlenwirtschaft*, Deutsche Kohlenbergbau-Leitung, Essen. The figures for wages show wages per shift (Barverdienst je Mann und Verfahrene Schicht) including family allowances. Details of social charges and allowances by regions were supplied by Deutsche Kohlenbergbau-Leitung. Family allowances were not deducted from wages owing to the lack of regional data, but for Germany as a whole they amounted to only \$0.07 per shift. The data on wages include workers in ancillary establishments, which may cause some downward bias in labour costs per ton.

Netherlands : The figures for output per man-shift were taken from *Monthly Bulletin of Coal Statistics, op. cit.* The figures for wages were taken from *Statistiek der Lonen*, Centraal Bureau voor de Statistiek, which gives earnings per shift, excluding family allowances. The Central Planning Office of the Netherlands supplied information on total disbursements for social charges and miners' coal, which was divided, in order to obtain costs per shift, by the number of shifts worked by all workers (including those in ancillary establishments), shown in *Statistiek der Lonen*. The figure for output per man-shift may be too high, since the exclusion of ancillary establishment, is based on a broader definition than in other countries. On the other hand, wages per shift include workers in ancillary establishments and so probably understate the wages of miners proper.

Saar : Full data on wages and social charges and allowances per shift were supplied by the Régie des Mines de la Sarre.

United Kingdom : Regional information on output per man-shift and wages per ton was taken directly from *Report and Accounts for 1949*, National Coal Board, Table 7 and Schedule X. The figures were adjusted on the basis of data given in Tables 39 and 40 so as to exclude allowances in kind from wages and include them in social charges and allowances. The figures exclude open-cast mining and licensed collieries falling outside the competence of the National Coal Board.

3. AVERAGE PITHEAD PRICES OF COAL, 1886-1949 (Table 6)

The sources for this table were :

1886-1924 : *Memorandum on Coal, 1927*, Vol. II, League of Nations.

1929-1936 : *The World Coal Mining Industry*, International Labour Office, 1938, and also *Annales des Mines 1925, op. cit.*, for Belgium ; *Statistiques de l'Industrie minérale*, 1924 and 1936, Bureau de Documentation minière, for France ; and *Historical Statistics of the United States, 1789-1945*, Bureau of the Census, Department of Commerce, for the United States.

1949 : *Annales des Mines, op. cit.*, May 1950, Table 14, for Belgium ; *Rapport de Gestion, 1949*, Charbonnages de France, for France ; and *Report and Accounts for 1949*, National Coal Board, for the United Kingdom. The figure for western Germany refers to 1950 and was taken from Table 4.

4. PRODUCTIVITY IN COAL MINING, 1881-1949 (Table 7)

The following sources were generally used :

1886 : *Historical Statistics of the United States, 1789-1945, op. cit.*, for the United States, and *Statistiques de l'Industrie minérale, op. cit.*, for France.

1909-1913 : *Memorandum on Coal, op. cit.*

1929 : *The World Coal Mining Industry, op. cit.*

1937 and 1949 : *Monthly Bulletin of Coal Statistics, op. cit.*

For the Saar, figures were taken from *Statistische Übersicht über die Kohlenwirtschaft im Jahre 1937, op. cit.*, for all years except 1949. For the United States, the source quoted for 1886 was also used for 1937, and the figure given for 1948 (in the absence of data for 1949) was taken from *Bituminous Coal in 1948, Mineral Industry Surveys*, Bureau of Mines.

III. PRICES AND COSTS OF RAW MATERIALS IN PIG-IRON PRODUCTION (Tables 8 to 11)

1. GENERAL

The figures contained in Tables 8 to 12 are the results of one series of calculations. In these calculations, of which the major results are given in Table 10, an attempt was made to establish the approximate costs of pig-iron production in six principal western European producing countries by estimating the average costs in each country of the three main raw materials : iron ore, coke and scrap. These three materials account for by far the greater, and also a relatively stable, proportion of the total costs of pig-iron production. In 1937, the proportion was 72.9 per cent in the United Kingdom and 73.8 per cent in the United States. Since the war, the proportion has probably slightly increased. In order to illustrate how the remaining part of total costs is accounted for, the following figures referring to the United Kingdom in 1937 are available :

	Per cent
Limestone, dolomite and other materials . . .	7.0
Electric power	0.8
Wages	8.7
Salaries, rents, taxes, depreciation, etc.	10.6

It should be noted that these figures and the estimates described here exclude manganese ores and that, in the production of blast furnace ferro-alloys, substantial amounts of manganese and other raw metal ores are used for which no allowance has been made.

The general method of estimation has been to determine for each country the average quantities of each of the three raw materials actually used in the production of one ton of pig-iron (including pig-iron for steel-making and foundry use, and also blast furnace ferro-alloys). These quantities were then multiplied by the estimated prices of the raw materials as delivered to blast furnaces in the different producing areas. In these calculations, the figures for total consumption of coke and iron ore were broken down according to country of origin, and, in the case of French ores, an additional distinction was made between Lorraine and western ores. The data for scrap refer to domestic scrap only, since it was found from available information that significant quantities of scrap were not generally imported for use in blast furnaces by the six countries concerned in 1949. The quantities and prices used refer to actual weights of the ores and scrap and not to their ferrous content. The figures for consumption used in these calculations refer to 1949, the most recent year for which full data are available. The prices used, however, all refer to April 1950 (or the nearest possible date)—a more recent period, but still before prices were affected by the abnormal demand for steel which developed in mid-1950.

In the following sections the sources and methods used at each stage in the calculations are described in detail, and in section 5 some general comments are made on the reliability of the results.

2. QUANTITIES OF COKE, IRON ORE AND SCRAP CONSUMED

In the following notes, Belgium and Luxembourg and also France and the Saar are considered together, since the figures for these countries were largely derived from the same sources. The data in all cases refer to the year 1949, unless otherwise stated.

Belgium and Luxembourg

Data on total pig-iron production and ore, coke and scrap consumption were supplied by the Steel Section of the Economic Commission for Europe from the material due to be published shortly in the first number of *Quarterly Bulletin of Steel Statistics*. The break-down of coke consumption in Luxembourg by area of origin was based on figures for imports of coke-oven coke given in the *Bulletin du Service des Etudes et de Documentation économiques et de l'Office de la Statistique générale*, Grand-Duché de Luxembourg, Vol. 1, Nos. 1-2, January-June 1950. The break-down of ore imports by areas of origin is based on *Bulletin de la Chambre syndicale de la Sidérurgie française*, séries bleues, No. 37, and on *Rapport annuel de l'Inspection du Travail et des Mines*, Grand-Duché de Luxembourg, 1949, pp. 86-87. The sinter consumption of Luxembourg and an allowance for that of Belgium equal to 5 per cent of total ore consumption were added to the figures for ore consumption in the two countries. Minor adjustments were made in order to reconcile the figures for production and, for Luxembourg, the figures for changes in stocks, with the data on foreign trade and consumption.

France and Saar

Bulletins de la Chambre syndicale de la Sidérurgie française, séries roses, No. 47, July 1950 and No. 51, September 1950, give total production of pig-iron and consumption of coke and iron ore, broken down by country and region of origin, and the consumption of sinter and scrap for the Saar and France. It was assumed that the distribution of imports of coke consumed in French blast furnaces was the same as that for total coke consumption in the French iron and steel industries. Sinter was treated as equivalent to Lorraine ore. For the Saar, « déchets métalliques » were added to « ferrailles et riblons » to give total scrap consumption.

Western Germany

Statistisches Vierteljahresheft, Aussenstelle Düsseldorf, Eisen- und Stahlstatistik, April-June, 1950, pages 18-19, 20-21, 24 and 28, gives total pig-iron production and ore, sinter, coke and scrap consumption, and the break-down between home-produced and imported ores used directly and in sintering. The break-down of total imports of foreign ores according to areas of origin was derived from *Bulletin de la Chambre syndicale de la Sidérurgie française*, séries bleues, No. 43, May 1950. The data on iron ore consumption for the period January-June 1949 covered only the United Kingdom and United States zones of occupation in Germany and a small adjustment was accordingly made to allow for the production of the French zone of occupation. Since the volume of imports of foreign ores was found to be higher than the figure for consumption of imported ores owing to an increase in stocks, it was assumed that the distribution of ores actually consumed according to areas of origin was the same as the distribution for imports in 1949. Sinter consumption, after deduction of its content of foreign ores, which was valued separately, was combined with the consumption of home-produced ores used directly with due allowance for the difference in ferrous content. The figure for ore consumption of 1,442 tons therefore shows the total quantity of home-produced ores plus sinter, reduced to a ferrous content of 30.0 per cent, the average for home-produced ore (concentrated and non-concentrated) delivered to Ruhr blast furnaces and sintering plants. The average ferrous content was derived from *Statistisches Vierteljahresheft*, op. cit., pp. 18 and 20.

United Kingdom

The *Statistical Yearbook for 1949*, British Iron and Steel Federation, gives ore, sinter, coke and scrap consumption per ton of pig-iron produced, and the break-down between home-produced and imported ores, used directly and for sintering. The break-down of total imports of foreign ores according to areas of origin was derived from the official British trade statistics. Since the volume of imports of foreign ores was found to be higher than the figure for consumption of imported ores owing to an increase in stocks, it was assumed that the distribution of ores actually consumed according to areas of origin was the same as the distribution of imports in 1949.

3. PRICES AND TRANSPORT COSTS OF IRON ORE, COKE AND SCRAP

Data on the prices of iron ore, coke and scrap as delivered to blast-furnaces were available in very few cases. It has therefore generally been necessary to estimate delivered prices by taking prices charged at mines, cokeries, or scrap-collecting centres, or, for materials moving in foreign trade, prices charged at the frontiers or ports, and adding to them an allowance for transport costs to the producing area. As a rule, the prices of coke and iron ore moving in foreign trade were taken from the trade statistics of the importing countries and were therefore c.i.f. prices at the ports or frontiers of the country concerned. Foreign trade statistics were not, however, available for trade between France and the Saar, nor for trade between Belgium and Luxembourg. Moreover, in some cases prices had to be taken from the statistics of exporting countries and a further allowance made for transport costs. The data on prices of materials which do not move in foreign trade (which form the greater part of consumption in the six countries concerned) and also supplementary data used for internationally traded materials are described in the following notes. The data used refer to April 1950 or the nearest possible period and all prices were converted into United States dollars at the official exchange rates prevailing in April 1950.

A. Coke Prices

Belgium

On the basis of information obtained from the Ministère des Affaires économiques et des Classes moyennes, the internal price of Belgian coke at coke ovens, and the price for shipments to Luxembourg in April 1950, were estimated at 755 and 620 Belgian francs, respectively.

France

Barème No. 9, Houillères du Bassin du Nord et du Pas-de-Calais, January 1950, gives the price of Nord-Pas-de-Calais coke in April 1950 at 4,800 francs per ton. After allowance for the 2 per cent rebate granted to the iron and steel industry, the resulting price of \$13.44 was used, since it was found that the price of cokes from other areas, when delivered to Lorraine blast furnaces, is practically the same (see *Barème No. 10*, Houillères du Bassin de Lorraine, January 1950). The cost of German, Belgian and Netherlands cokes imported into France given in Table 10 was estimated on the basis of prices charged by the exporting countries to the French importing organization (ATIC) and corresponding transport costs. In practice, the Caisse de Compensation equalizes the costs of imported cokes with those of Nord-Pas-de-Calais coke delivered to Homécourt (Lorraine), and this may thereby tend to increase somewhat the total costs of the imported cokes.

Western Germany

Statistisches Vierteljahresheft, *op. cit.*, p. 89, gives the internal price of German metallurgical coke at 42 DM. or \$10.00 per ton. Deutscher Kohlen-Verkauf price lists give export prices valid for April 1950. These prices differ according to the receiving countries and also according to whether coal is sold f.o.r. frontier or f.o.b. Ruhrort.

Saar

It was assumed that the cost of Saar coke to blast furnaces situated in the Saar, which use exclusively coke manufactured in cokeries in the immediate vicinities belonging to the iron and steel plants themselves, was equal to the price of 5,210 French francs, at which the coke might alternatively be sold to French blast furnaces at Béning on the Saar-French border (see *Barème No. 5*, Régie des Mines de la Sarre, January 1950) after allowance was made for average transport costs from the cokeries in the Saar to Béning and for the 2 per cent rebate to the iron and steel industry.

United Kingdom

Iron and Coal Trades Review, April 7, 1950, p. 822, gives the official price of coke at coke ovens in March 1950, £3 12s. 1d. per long ton, or \$9.92 per metric ton.

B. Iron Ore Prices

The following notes are subdivided according to the principal ore-producing areas rather than according to countries.

United Kingdom ores

No detailed data on prices of the various ores mined in the United Kingdom are available. The average price of 7 shillings per ton at mine was taken from the approximate estimate in *European Steel Trends in the Setting of the World Market*, *op. cit.*, p. 55.

Western German ores

Stahl und Eisen, No. 16, Düsseldorf, 3 August 1950, p. 731, gives a series of prices for various types of Siegerland, Lahn/Dill and Oberhessen ores, both concentrated and non-concentrated, including details of their ferrous and manganese content. Calculations of the prices of these ores per ton of ferrous content (excluding that part of the price corresponding to the manganese content), delivered to the Ruhr, show that the figure obtained for Siegerland Rohspat ore of 69 DM. per ton of Fe may be considered as typical.

Since the average iron content of home ores consumed in German blast furnaces and sintering plants in 1949 is 30.0 per cent, the resulting average price per ton of ore in natural weight is 20.70 DM. or \$4.93, delivered to the Ruhr blast furnaces. Of this, approximately \$4.40 represents price at mine and \$0.53 the cost of transport to the Ruhr.

Lorraine ores

L'Usine Nouvelle, Société de Périodiques Techniques et Industriels, 20 April, 1950, p. 33, gives the officially controlled price for Lorraine limey ores containing 32 per cent Fe or silicious ores of 33 per cent Fe in April 1950 at 585 French francs f.o.r. mine. After allowance for the higher average ferrous content of ores actually mined in 1949, the price was increased to 600 francs. This price was used for shipments to the Saar. Actual production costs for Lorraine ores were about 100 francs higher than the official sales price. Since over 80 per cent of ores used in France are consumed in blast furnaces whose owners also operate the mines and bear the burden of the controlled price, the actual cost at the mine of ore to French pig-iron producers has been estimated at 680 francs. All Lorraine ores imported by Luxembourg iron producers (who own a part of the French mines) are sold at cost price, plus 5 per cent—i.e., 735 French francs—at mine. The same price applies to some 50 per cent of Lorraine ore sold to Belgium, the rest being sold at the price which varies according to market conditions but was in April 1950 only slightly higher than 735 French francs.

Western French ores (Normandie and Anjou-Bretagne)

L'Usine Nouvelle, *op. cit.*, p. 33, gives the controlled internal price in April 1950 at 928 French francs for ores of 44 per cent iron content, plus 50 francs for every additional per cent of Fe. Ores currently mined contain some 48 per cent of Fe. The price was therefore raised to 1,128 francs. This price was taken for shipments to France and to the Saar. For shipments to Belgium, an estimate was made on the basis of Belgian trade statistics and the relative proportions of western and eastern ores shipped. For shipments to Germany and the United Kingdom, foreign trade statistics could be directly used, since only western French ores were exported to these countries in 1949.

Luxembourg ores

In Luxembourg, nearly all the iron-ore mines belong to iron and steel companies, so that data on costs rather than on prices had to be used. An estimate of average costs of 97 Luxembourg francs was made on the basis of data given in *Rapport*

annuel de l'Inspection de Travail et des Mines, Grand-Duché de Luxembourg, 1949, p. 87. This estimate, for lack of more recent data, refers to 1949 but no substantial changes had occurred between 1949 and April 1950. The same price was also used for exports to Belgium, where the steel companies own the major part of the Luxembourg mines supplying them with ore. For exports from Luxembourg to Germany, the price of 131.48 Luxembourg francs for ore delivered to the Luxembourg-German frontier given in *Agence industrielle et économique*, The Hague, 22 December 1949, p. 9, has been used.

C. Scrap Prices

Belgium and Luxembourg

The price of blast-furnace scrap at collecting centres in April 1950 was roughly estimated at 900 francs per ton. If any German scrap was imported for use in blast furnaces, its price may be assumed to have been approximately the same. For Belgium, an allowance was made for transport costs; for Luxembourg, it was assumed that all blast furnace scrap arises in the iron and steel works themselves and did not involve significant transport costs.

France and Saar

L'Usine Nouvelle, *op. cit.*, p. 32, gives the internal price of French scrap. The same price was used for the Saar and separate estimates of transport costs were added for each country.

Western Germany

Statistisches Vierteljahresheft, *op. cit.*, p. 88, gives the domestic price of German scrap. It was assumed not to carry any substantial additional transport costs.

United Kingdom

The delivered price of blast furnace scrap was estimated from "Scrap Iron and Steel for Use in Blast-furnaces" published in *Government Control Orders* after allowance for quantity differentials and merchants' commissions.

D. Transport Costs

Owing to the complexity of internal and international trade in the three materials and the limitations of the available data, only approximate estimates could be made of the transport costs incurred in moving the materials either from the points of production or from the frontier or port to the blast-furnace. A great variety of sources were used which cannot be enumerated in detail. The principal sources were schedules of transport rates in particular for Germany: *Deutscher Eisenbahn-Güter- und Tiertarif* and *Ausnahmetarife* and also data on actual costs furnished by the French Société nationale des Chemins de Fer, for a variety of routes, and by the Ministry of Transport for the United Kingdom. In general, the estimates were based on the costs by the routes and methods of transport normally used, which are not necessarily the cheapest. It was assumed throughout that railway-owned rather than privately-owned wagons were used. Where estimates of the importance of transport by inland waterways in relation to railways had to be made, traffic in the year 1949 was used as the basis for the calculations. The points of shipment of the various materials were generally known with sufficient accuracy and, on the other side, the actual location of blast furnaces was taken, as far as possible, into consideration. In the following notes, the principal simplifying assumptions and approximations that had to be made for particular countries are described:

Belgium

Raw materials were assumed to be consumed in approximately equal proportions in the Charleroi and Liège producing areas.

France

Weighted averages of the actual cost incurred in 1949 for transporting Lorraine ore from mines to blast furnaces in the Lorraine, Nord and Saar areas were supplied by the Comptoir de Vente des Minéraux de fer de l'Est de la France. In order to estimate the movement of ores between the Lorraine and Nord areas, it was assumed that all ores from the west of France as well as those from the Pyrenees and other areas were shipped to the Nord producing area, as well as 10 per cent of Lorraine ores. Lorraine was assumed to consume only its own ores. Correspondingly, it was assumed that all French metallurgical coke was produced in the Nord-Pas-de-Calais area, that 30 per cent of it was used in the area, and 70 per cent shipped to Lorraine, and that all imported coke was also sent to Lorraine.

The delivered price of Ruhr coke to the French iron and steel industry in Lorraine (Homécourt) was determined by calculating separately the delivered prices of coke shipped by rail (f.o.r. Nennig), and by water, through Strasbourg and Givet (f.o.b. Ruhrort), and weighting these prices by quantities actually transported by railways and waterways in 1949. \$15.63 is thus the average of costs of Ruhr coke in Homécourt, before intervention of the Caisse de Compensation. The average transport cost from Ruhr cokeries to Homécourt (\$4.85) was determined by a weighted average of total transport costs by rail and water.

United Kingdom

On the basis of an examination of the distribution of pig-iron production in relation to that of coke and iron ore production and the ports of entry for materials, inland transport costs were estimated at 9/- for coke, 6/- for home produced iron ores, and 3/6 for imported ores.

4. SUPPLEMENTARY DATA USED IN TABLES 8 AND 9

In addition to the results of the main set of calculations described in the sections above, certain supplementary data on prices were used in Tables 8 and 9. The sources of these data are as follows:

Domestic Market Prices of Coal, Coking Fines and Coke, First Half of 1950 (Table 8)

Pithead prices of coal were derived from Table 4.

Prices of coke at coke ovens and at blast furnaces were derived from Table 10, the sources of which are described above, with the following adjustments : For France, full transport costs from the Nord area to Lorraine were taken into consideration.

The prices of coking fines were derived from the sources described below.

Belgium and the United Kingdom

Bulletin de l'Institut de Recherches économiques et sociales, op. cit., May 1950.

France

Houillères du Bassin du Nord et du Pas-de-Calais, Barème No. 9, 1 January 1950 (price for "fines lavées grasses").

Western Germany

Statistisches Vierteljahresheft, op. cit., p. 89 (price for "Kokskohle").

Prices of Domestic and Imported Iron Ores, April 1950 (Table 9)

The data on prices were derived from Table 10, for which the sources and methods are given in the sections above.

Iron contents of ores were derived from the following sources :

Luxembourg

Rapport Annuel de l'Inspection du Travail et des Mines, op. cit., p. 83.

Germany

Statistisches Vierteljahresheft, op. cit., pp. 18-20.

United Kingdom

Statistical Yearbook for 1949, op. cit., Table 7, p. 10.

Other countries

Estimates were made on the basis of *Statistical Yearbook for 1949, op. cit.*, *European Steel Trends in the Setting of the World Market, op. cit.*, p. 115, and *Analyses of Iron and Manganese Ores*, B.I.S.C. (ORE) Ltd., London, 1950.

3. VALIDITY OF THE RESULTS

As a result of the approximate nature of the assumptions and methods that have necessarily been used in these estimates, as well as the varying reliability of the data, the results are subject to a considerable margin of error. The principal reservations affecting the general validity of the results may be summarized as follows :

(i) The three principal raw materials from which the calculations are based cover only 70 to 80 per cent of the average total costs of pig-iron production, as noted above ;

(ii) The calculations are based on average quantities of materials used in each country in the year 1949, while the prices applied refer to the month of April 1950, or the nearest possible date. The effect of this difference is not, however, very substantial, since it appears from the limited information available that there were no large changes in consumption between the two periods. It is, on the other hand, important to note that the general level of prices has risen since April 1950 and that the structure of relative costs may have been affected ;

(iii) There are margins of error inherent in the data on prices. In particular, where standard controlled prices were used, differences in quality could not be taken into consideration ; where companies operating blast furnaces produce their own iron ores coke or scrap, the actual costs incurred may deviate from the price prevailing on the outside market (it was not generally possible to make allowance for this factor except in the case of Lorraine ores and Luxembourg ores) ; and finally, the prices and demand for blast furnace gas in the outside market may affect coke consumption and costs ;

(iv) The additional costs incurred in producing ferro-alloys (and, in the case of Germany, the value of manganese content in home ores) have been systematically excluded, so that the figures indicate the average cost of pig-iron for steel-making and foundries, rather than the average cost of all pig-iron including spiegeleisen and blast furnace ferro-alloys ;

(v) The estimates of transport costs are inevitably only of an approximate nature owing to the difficulty of establishing precisely the appropriate transport rates, rebates, seasonal variations, etc., to be applied, and secondly, owing to the difficulty of establishing the precise location of places of consignment and places of production, a slight error in which may mean that reloading, for example, from waterways, and hence substantial additional costs, have been omitted ;

(vi) All taxes on production and sales have systematically been excluded from the calculations. Their incidence on actual costs incurred by producers is probably substantial and varies from country to country.

In view of these different factors, the figures for total costs given in Table 10, as well as the related figures given in Tables 8, 9 and 11, should be used with caution. In general, only substantial differences in costs, particularly in inter-country comparisons, are of significance.

IV. PRICES OF COKE, IRON ORE, SCRAP AND FINISHED STEEL (Tables 12 to 14)

1. INDEX NUMBERS OF PRICES OF COKE, IRON ORE AND SCRAP, 1937-1950 (Table 12)

The index numbers were computed from price quotations, which were all taken from the following eight sources :

- A. *Statistisches Jahrbuch für das Deutsche Reich, 1940/41.*
- B. *Bulletin de la Chambre syndicale de la Sidérurgie française, 1950.*
- C. *Wirtschaft und Statistik, Statistisches Amt des Vereinigten Wirtschaftsgebietes, Stuttgart, 1949 and 1950.*
- D. *L'Usine, Société de Périodiques techniques et industriels, Paris, 1938.*
- E. *International Financial Statistics, International Monetary Fund, 1950.*
- F. Data derived from Table 10.
- G. Official trade statistics of the respective countries.
- H. *Statistisches Vierteljahresheft, op. cit., 1950.*

Definitions of the quotations and detailed indications as to which of the above sources was used for each quotation are given in the following notes :

United States : Coke : Connellsburg, ex-works, 1937 from A, 1938-1950 from B. Iron ore : Old range Bessemer, Lake Superior, free port, 1937 from A, 1938-1950 from B. Scrap : Heavy melting scrap, average of Pittsburgh, Chicago and Philadelphia quotations, 1937 from A, 1938-1950 from B.

United Kingdom : Coke : Northumberland, f.o.b. Durham, 1937-1938 from A, 1949-1950 from B. Iron ore : Hematite, 50 per cent Fe, North-West coast, at mine head, 1937-1938 from A, 1949-1950 from B. Scrap : Heavy steel, North English coast, 500 ton lots, f.o.b., 1937-1938 from A, 1949-1950 from B.

France : Coke : Foundry, 90 mm. at pit, 1937-1938 from A, 1949-1950 from C. Iron ore : Minette, calc., 35 per cent Fe free wagon, Briey, 1937-1938 from A, 1949-1950 from C. Scrap : Heavy Martin F.M.O., free wagon (1937 and 1938 : Steel smelting scrap), 1937-1938 from D, 1949-1950 from E.

Belgium : Coke : Blast furnace, 60-80 mm., 1937-1938 from A, 1949-1950 from F. Scrap : Unit value of Belgian exports, 1937-1950 from G.

Germany : Coke : Blast furnace, free delivered, 1937-1938 from A, 1949-1950 from H. Iron ore : Siegerländer free wagon at mine, 1937-1950 from H. Scrap : First class steel, free wagon, Essen, 1937-1938 from A, 1949-1950 from H.

Sweden : Iron ore : Unit value of Swedish exports of iron ore, f.o.b., 1937-1950 from G.

2. STEEL PRICES IN WESTERN EUROPEAN COUNTRIES AND THE UNITED STATES, 1950 (Table 14)

The prices generally refer to producers' quotations (f.o.r. or basing-point) as indicated in the footnotes to the table. For Belgium and the United Kingdom, however, the prices of all products shown (except heavy rails in the United Kingdom, which are quoted ex-works) are for goods delivered to the customer and hence include transport costs. The latter may be estimated at one pound sterling per ton in the United Kingdom and 100 Belgian francs per ton in Belgium. The original price quotations have, therefore, been diminished by \$2.80 and \$2.00, respectively.

The sources used were as follows :

United Kingdom : *The Metal Bulletin, Metal Information Bureau, London, 15 August, 1950, pages 12 and 13.*

Western Germany : For Thomas steel prices : *Statistisches Vierteljahresheft, op. cit., August 1950, pp. 88 and 89.* For Martin steel prices : *L'Usine nouvelle, op. cit., 15 June, 1950, page 19.*

France : *L'Usine nouvelle, op. cit., 10 August, 1950, page 27.*

Belgium : *Bulletin de la Chambre syndicale de la Sidérurgie française, op. cit., June 1950, page 35.*

Italy : *Listino settimanale dei prezzi all'ingrosso sulla Piazza di Milano, Camera di Commercio, Industria ed Agricoltura di Milano, 31 July, 1950, pages 20 and 21.*

Netherlands : All quotations have been communicated directly by the Central Planning Office of the Netherlands.

United States : *The Iron Age, Chilton Company Inc., Philadelphia, June 22, 1950, pages 142 and 144.*

CHANGES IN THE STRUCTURE OF WAGES IN EUROPEAN COUNTRIES

Since the war, the maintenance of wage stability, the establishment of wage differentials appropriate to the required distribution of man-power, and also the maintenance of wage incentives to labour have been a continuing concern of economic policy in most European countries. In previous analyses,¹ the movement of the general level of wages in post-war years has been examined in relation to the general problem of internal stability. In the present note, data are presented on changes in relative wages in different sectors of the economy, together with information on changes in methods of wage payment. Although these data are limited in scope, they illustrate the general pattern of the changes that have taken place and some of the problems that have arisen.

Wages in Primary and Secondary Industry

The structure of wages may be considered in relation to three main branches of economic activity : primary, including extractive, industries ; secondary or processing and manufacturing industries ; and tertiary or service industries. The information presented in this note relates only to primary and secondary industry. For primary industry, the data are limited owing to the difficulties of establishing reliable and comparable statistics for wages in primary occupations, particularly in agriculture, which arise chiefly from the varying importance of wage labour in relation to persons working on their own account and the varying importance of payments in kind. For secondary industry, the data are more complete and reliable.

The most notable change that has taken place in the structure of wages since before the war has been the increase in wages in primary industry in relation to secondary industry. Owing to the difficulty of comparing absolute levels of wages in primary and secondary industries, it is possible to show only the relative movement of wages in the two sectors derived by expressing the available indices of wages in primary industry as a ratio of indices of wages in secondary industry. In Table 1 such ratios are given for agriculture, forestry and coal mining, showing the position in post-war years compared with that of 1938. It will be seen that, between 1938 and 1947, an increase in

¹ See *Economic Survey of Europe in 1949*, p. 52, and previous SURVEYS.

Table 1

RELATIVE MOVEMENT OF WAGES SINCE 1938 IN PRIMARY AND SECONDARY INDUSTRY

Index numbers—1938 = 100

Country	1947	1948	1949
<i>Ratio of wage index for agriculture to wage index for industry</i>			
Belgium	130	123	126
Denmark	220	196	189
Finland ^a	109	101	102
Ireland ^a	130	131	131
Italy ^b . . . . .	..	116	119
Netherlands ^{b c}	145	147	151
Norway	175	177	179
Spain ^d	145	145	..
Sweden	116	129	128
Switzerland ^{a b}	113	116	122
United Kingdom ^e	150	152	155
United States	148	146	..
<i>Ratio of wage index for forestry to wage index for industry</i>			
Finland	124	109	101
Norway	173	181	187
Sweden	123	117	119
<i>Ratio of wage index for coal mining to wage index for industry</i>			
Belgium	108	115	111
France	125	130	125
Germany : western zones	105	108	106 ^f
United Kingdom	122	127	126
United States	95	100	99

NOTE. — The figures give the ratio between indices of average hourly earnings in industry and indices of (i) money wages in agriculture (which, in most instances, are based on summer wages of male workers), (ii) winter earnings of hewers in forestry and (iii) earnings per man-shift in coal mine. Industrial wages cover wages in manufacturing and mining except in the comparison with coal mining where they refer to wages in manufacturing only.

^a 1939 = 100.

^b Indices of wage rates.

^c 1938/39 = 100.

^d 1936 = 100.

^e Indices of weekly wage rates.

^f First quarter 1950.

wages in agriculture, forestry and coal mining, in relation to those in industry, occurred in every European country for which figures are available. Since that time the movement has been more varied in different countries, but the improved relative position of wage earners in primary industry has generally been maintained.

Table 2

RELATIVE MOVEMENT OF WAGES SINCE 1914 IN PRIMARY AND SECONDARY INDUSTRY
Index numbers—1914 = 100

Country	1920	1924	1932	1938	1945	1947	1948
<i>Ratio of wage index for agriculture to wage index for industry</i>							
Denmark ^a	94	..	68	102	253	224	202
Norway	87	70	45	48	77	84	85
Sweden ^b	102	75	63	83	101	96	107
United Kingdom . . . . .	..	87	101 ^c	102 ^d	133	135	142
United States	101 ^e	79	61	61	86	90	89
<i>Ratio of wage index for forestry to wage index for industry</i>							
Norway	94	71	43	49	78	85	89
Sweden ^b	105	74	55	80	92	98	94
<i>Ratio of wage index for coal mining to wage index for industry</i>							
United Kingdom ^f . . . . .	..	78	68 ^c	72	87	93	94
United States . . . . .	..	92	73	87	75	83	87

NOTE. — See explanatory note to Table 1.

^b 1913 = 100.

^a For industry : 1914 = 100. For agriculture : 1909-1914 = 100.

^c 1931.

^e 1919.

^d August 1939.

^f 1906 = 100.

As may be seen from Table 2, covering a more limited number of countries, this general improvement of wages for heavy work in primary industries in relation to other sectors has tended to restore the position prevailing before the First World War. Between the two wars the effects of the depression were particularly pronounced in agriculture and forestry and also in mining, notably in the United Kingdom. At the same time, the high average level of unemployment meant that there was little opportunity for unemployed workers to find jobs in other industries, with the result that it was possible for wages in these relatively strenuous occupations to remain at abnormally low levels for prolonged periods without giving rise to a shortage of labour in primary industries. The reversal of this pattern shown in Table 1 may largely be attributed to the high levels of employment maintained since 1938, which, by increasing the opportunities for employment elsewhere, have caused wages to be adjusted so that they more closely reflect the relative attractiveness of this type of occupation. In certain cases, as in Danish and British agriculture, the figures in Table 2 show that wages in primary industries have risen to a higher level in relation to wages in secondary industry than

at the beginning of the century. This is, of course, in accordance with the long-term trend for the gap between wages in primary and secondary industry to narrow as economic development proceeds and an increasing proportion of the working population is absorbed into secondary and tertiary industry. Though this trend was largely arrested in the inter-war period, it may be expected to be increasingly evident in the future if high rates of activity and industrial investment continue.

Wages in Different Sectors of Industry

The changes that have taken place in relative wages in different sectors of industry are shown in Table 3, which presents, for a number of countries, hourly earnings in selected industries as a percentage of the simple average for the various industries listed. From these figures two main conclusions may be drawn. First, the structure of inter-industry wage differentials is remarkably similar in all countries, and such changes as have occurred since the war have been in a similar direction. Second, there has been a general narrowing of wage differentials compared with pre-war.

COMPARATIVE LEVELS OF EARNINGS IN SELECTED COUNTRIES

Ratio of hourly earnings in each industry to the unweighted average

Industry	Belgium			Czechoslovakia		Denmark			Finland		
	1937 ^c	1948	1949	1937 ^d	1948 ^e	1938	1948	1949	1939	1946	1949
Mining and quarrying	118	131	131	121	122	..	..	..	92	106	105
Food, drink and tobacco	92	89	87	..	..	100	93	95	107 ^f	92 ^f	91 ^f
Chemicals, etc.	106	103	106	95	90	100	92	92	..	..	..
Wood and wood products	93	87	105	94	95	92	95	95	99	105	103
Printing	111	108	107	142	99	113	111	111	..	..	..
Paper	97	96	95	86	87	87	85	85	99	108	101
Leather	93	92	90	101	97	110	115	113	..	..	..
Rubber . . . . .	..	103	..	..	..	..	..	..	89	89	94
Textiles	88	93	91	74	98	88	91	91	89	80	86
Clothing	96	90	85	79	87	106	109	110	..	..	..
Building materials, etc.	96	100	..	94	106	88	91	91	108	109	110
Metals and engineering	108	110	109	103	98	103	106	107	115	111	111
Building	101	97	95	110	123	111	110	110	..	..	..
Simple average of industries covered .	100	100	100	100	100	100	100	100	100	100	100
Industry	Italy			Netherlands			Norway			Poland	
	1938	1948	1949 ^k	1939 ^l	1947 ^m	1948 ⁿ	1940	1948	1949	1939	1948 ^o
Mining and quarrying	100	99	110	..	..	..	88	98	98	97	114
Food, drink and tobacco	91	87	87	100 ^p	94 ^p	96 ^p	98	89	89	..	..
Chemicals, etc.	107	106	106	..	..	..	105	106	109	123	103
Wood and wood products	90	86	82	88	94	92	..	91	91	59	93
Printing	117	107	109	121	110	111	120	116	117	..	..
Paper	89	92	91	97	95	96	85	92	92	100	90
Leather	109	101	103	..	99	96	92	106	103	..	..
Rubber	114	130	129	..	..	..		..	..	..	..
Textiles	75	91	90	..	..	..	86	89	87	106	102
Clothing	76	83	79	99	105	106	99	100	98	..	..
Building materials, etc.	100	100	95	..	..	..	..	98	99	103	94
Metals and engineering	130	117	118	..	107	107	98	100	98	110	104
Building . . . . .	..	..	..	96	95	95	127	115	117	..	..
Simple average of industries covered .	100	100	100	100	100	100	100	100	100	100	100

^a For Czechoslovakia, Hungary, Ireland, Italy, the Netherlands, Poland and the United States, the figures refer to earnings of both men and women; for the other countries, the figures refer to men's earnings only.

^b For 1938, the figures refer to total Germany; for the post-war years, they refer to the western zones of Germany only.

^c February.

^d March.

^e April.

^f October.

Some of the main characteristics of the structure of inter-industry wage differentials may be seen in Table 4, giving simple averages of the individual country figures for each industry in Table 3. If these averages are compared with the figures for each country shown in Table 3, it will be seen that devia-

tions from this pattern are remarkably slight in spite of the different stages of economic development of the countries shown. In general, industries involving heavy or skilled labour are at the top of the scale with light industries typically at the bottom. Moreover, the general changes that have occurred since

3

INDUSTRIES BY INDIVIDUAL COUNTRIES ^a

average for the group of industries within each country

France			Germany ^b			Hungary			Ireland			Industry
1938/	1947/	1949/	1938	1948/	1949/	1938	1948/	1949/	1938/	1948/	1950/	
103 ⁱ	125 ⁱ	133 ⁱ	..	..	..	..	..	..	91	103	104	Mining and quarrying
74	81	82	98	89	88	81	80	83	113	104	103	Food, drink and tobacco
..	..	..	116	112	108	96	97	98	106	98	100	Chemicals, etc.
89	89	90	73	91	85	79	90	87	113	102	102	Wood and wood products
125	126	115	142	117	120	227	126	125	128	121	115	Printing
..	..	..	85	92	92	79	99	100	88	90	88	Paper
73	83	84	..	..	..	88	107	103	91	99	102	Leather
..	..	..	..	..	..	..	108	101	..	..	..	Rubber
68	84	86	81	88	91	81	93	92	67	75	75	Textiles
..	..	..	..	..	..	88	97	98	88	88	86	Clothing
130	99	100	92	105	98	71	91	92	105	105	115	Building materials, etc.
142	120	116	111	109	103	108	118	114	109	115	110	Metals and engineering
96	92	94	102	97	114	..	92	107	..	..	..	Building
100	100	100	100	100	100	100	100	100	100	100	100	Simple average of industries covered
Sweden			Switzerland			United Kingdom			United States			Industry
1938	1948	1949	1938/	1947/	1949/	1938/	1948/	1949/	1938	1948	1949	
126	121	126	..	..	..	92	117	119	126	124	123	Mining and quarrying
104	94	94	109	97	98	92	88	88	89	88	88	Food, drink and tobacco
98	97	99	102	102	105	100	98	98	98	98	99	Chemicals, etc.
77	85	87	88	91	90	99	97	98	75	88	88	Wood and wood products
125	120	121	141	127	125	142	116	118	131	122	126	Printing
91	89	90	97	100	102	95	94	93	89	93	93	Paper
91	97	100	..	..	..	94	97	96	79	81	79	Leather
78	88	91	76	89	87	84	91	93	69	84	82	Rubber
80	89	91	95	98	98	100	101	101	79	85	81	Textiles
98	98	102	89	96	94	91	96	97	96	94	95	Clothing
131	123	..	103	100	100	109	107	105	115	106	107	Building materials, etc.
100	100	100	100	100	100	99	92	93	140	133	134	Metals and engineering
100	100	100	100	100	100	100	100	100	100	100	100	Building
Simple average of industries covered												

^g December.^k Third quarter.ⁿ November.^h August.^l October/November.^o June.ⁱ Coal mines only.^m September/October.^p Bread industry only.

1938 have tended to bring industries more closely into conformity with this order. Before the war, printing stood at the top of the scale, far above any other industry, largely owing to the strength of printers' trade unions, which permitted them to defend their position in the inter-war period. Since the war, wages in printing

have fallen in every country in relation to those of other sectors. At the same time, wages in the sector "mining and quarrying", which before the war were in a middle position, have generally risen and wages in the sector "food, drink and tobacco", a very heterogeneous group of light industries, have declined in most countries.

Table 4

COMPARATIVE LEVEL OF EARNINGS
IN SELECTED INDUSTRIES—AVGARES
FOR EUROPEAN COUNTRIES ^a

Industry	Number of countries included in average	1938	1948	1949 ^b
Printing	12 ^c	127	115	114
Metals and engineering . . .	14	111	108	107
Building	9	108	105	107
Chemicals, etc.	12	105	100	101
Mining and quarrying . . .	10	103	114	116
Food, drink and tobacco . . .	13	97	91	91
Building materials, etc. . .	12	96	98	98
Leather	8	95	99	99
Clothing	10	93	96	95
Paper	13	91	93	93
Wood and wood products . . .	14	88	93	93
Textiles	13	82	90	90

^a The figures indicate, for each industry and year, the unweighted averages of the figures for individual countries shown in Table 3.

^b For Czechoslovakia and Poland, the figures included in the average are those for 1948.

^c Excluding Hungary, where the relative level of wages in the printing industry before the war seems to have been very much out of line with that in European countries generally.

The extent to which wage differentials between different sectors of industry have narrowed may be indicated by the figures in Table 5 showing, for each country and year, the standard deviation in the distribution of average earnings as given in Table 3.¹ It will be seen that there has been a marked narrowing of the spread of industrial wages in almost all of the sixteen countries for which figures are available, including those of eastern Europe, western Europe and the United States. The only exceptions are found in the case of Belgium, where the contrary movement has taken place, and in Denmark and Finland, which show no significant change.²

¹ Since these standard deviations have been calculated from an extremely small number of observations, their significance should not be over-stressed. In particular, the differences between countries in the level of the standard deviations may be due to differences in coverage and, therefore, do not necessarily indicate a greater or smaller disparity of wage levels.

² It has been necessary, for lack of sufficiently detailed data, to limit this analysis to averages for broad sectors of industry. It seems likely, however, that wage differentials between indi-

Table 5

COEFFICIENT OF VARIATION FOR AVERAGE EARNINGS IN SELECTED INDUSTRIES ^a

Country	1938	1948	1949
Belgium	9	12	13
Czechoslovakia	18	12	..
Denmark	9	10	10
Finland	9	10	8
France	25	18	17
Germany ^b	20	10	11
Hungary, including printing . . .	43	13	12
excluding printing	18	11	10
Ireland	16	12	12
Italy	16	13	14
Netherlands	10	6	7
Norway	13	9	10
Poland	18	8	..
Sweden	19	14	14
Switzerland	17	10	10
United Kingdom	14	9	9
United States	22	16	17

^a The figures are derived from Table 3 and indicate, for each country and year, the standard deviation for average earnings in selected industries, expressed as a percentage of the unweighted average for these industries.

^b For 1938, the figures refer to the whole of Germany; for the post-war years, they refer to the western zones of Germany only.

A narrowing of wage differentials may also be observed in Table 6, showing the changes in the wage position of women in relation to men and of unskilled workers in relation to skilled. It will be seen that, in most cases, wages for female workers have risen considerably in relation to those for male workers. The improvement in the relative position of unskilled workers is also fairly general although less pronounced, and in a few countries the relationship has remained virtually unchanged compared with pre-war. Moreover, in eastern European countries, for which figures cannot be given in Table 6, the wages of skilled workers appear to have been increased in relation to those of unskilled workers, as is discussed below.

vidual industries within each sector have similarly narrowed. Such appears to be the case in the United Kingdom, as may be seen from the following figures:

Industry group	Number of sub-groups	Average earnings for men as percentage of simple average for the industry group				Range between highest and lowest Sub-groups	
		Highest sub-group 1938	1948	Lowest sub-group 1938	1948	1938	1948
Textiles	12	128	117	82	85	46	32
Clothing	9	113	113	87	90	26	23
Metals and engineering	21	138	115	87	91	51	24
Food, drink and tobacco . . .	6	122	107	91	97	31	10

Table 6

RELATIVE MOVEMENT OF WAGES FOR WOMEN AND MEN AND FOR UNSKILLED AND SKILLED WORKERS

Index numbers — 1938 = 100

Country	Ratio of index for women's wages to index for men's wages		Ratio of index for unskilled workers' wages to index for skilled workers' wages	
	1948	1949	1948	1949
Austria . . . . .	..	..	109	107
Belgium	106 ^a	104 ^a	99	99
Denmark	108	109	100	100
Finland ^b	118	119	..	..
France	123	124	103	103
Germany ^c	110	115	110	109
Ireland	103	..	..	..
Italy	152	152	139	137
Netherlands	114 ^d	..	115 ^e	..
Norway	108	108	114 ^f	..
Sweden	114	115	..	..
Switzerland ^g	118	118	109	109
United Kingdom	118 ^h	120 ^h	111 ^{f,i}	111 ^{f,i}

^a 1937 = 100.

^b 1939 = 100.

^c The figures for the base year refer to total Germany and include mining. Post-war figures refer to the U.K./U.S. Zone of Germany only and exclude mining.

^d September/October 1942 = 100. The figure refers to November.

^e 1938/39 = 100. The figure refers to November.

^f Engineering industry only.

^g June 1939 = 100. The figures refer to October.

^h October 1938 = 100. The figure refers to October.

ⁱ August 1939 = 100. The figure refers to October.

The general tendency for wage differentials to narrow appears to be the result of a number of factors : First, social policy has in many countries aimed specifically at adjusting certain inequalities, notably the difference between men's and women's wages. At the same time, it appears, moreover, that with the higher levels of employment prevailing since 1938 the range of occupations in which women can find employment has widened. Second, higher levels of employment have also tended to make the bargaining strength of trade unions more equal than it was in the inter-war period, when the strength of unions, and hence the degree of monopoly in the labour market, varied widely in different industries owing to the varying incidence of unemployment. Third, there was a common tendency in the inflationary conditions during and after the war, as after the First World War,¹

for wage increases to be granted in such a way that they improved the relative position of lower-paid workers. Although in some countries, such as France, wage policies were introduced which aimed specifically at preserving differentials at the same time as limiting the upward movement of the general wage level, it was a common practice for wage increases to be granted at flat rates, which had the effect of improving the relative position of lower-paid workers. At the same time, there was also a tendency for wage demands to be granted in post-war collective bargaining more freely to lower-paid workers than to those who were further above the conventional subsistence level. In some countries with highly centralized trade union movements—notably Norway and Sweden—the improvement of the relative position of traditionally low-paid groups of workers has been one of the basic aims of trade-union policy since the middle of the 1930's. Finally, it should also be noted that the income of workers, as distinct from wages, has been affected by still another equalizing influence—the increase in social benefits—which is not reflected in the figures presented in the accompanying tables. Since these benefits, such as family allowances and other social receipts, are generally granted at an equal rate to workers of all occupations, they must have brought about a considerable further narrowing of differentials in the net income of workers.

The Problem of Wage Differentials

Under conditions of full employment, as have prevailed in many European countries since the war, the problem of relative wages is a far more important factor in governing the allocation of labour between industries and occupations than in times of widespread unemployment. When jobs in general are hard to find, the new entrants into industry will necessarily go to the trades where they have the best prospect of finding work ; hence it is the relative demand for labour in the different industries, rather than the relative levels of pay in relation to the attractiveness of work, which determines the distribution of labour between occupations. Relative wages at such times may be largely the outcome of a series of historical accidents (such as the relative strength of unionism in different industries) and may bear little relation to the long-term need for maintaining the required distribution of the labour force among the different occupations. In many European countries before the war, as mentioned above, the lowest pay was

¹ See *Wage Changes in Various Countries, 1914-1925*, International Labour Office, Geneva, 1926.

frequently found in the most strenuous and dangerous occupations, without thereby creating a shortage of labour for that type of work.

In a full-employment economy, on the other hand, where jobs are not difficult to find, relative wages must be far more closely geared to the net advantages of different kinds of work—in other words, to the true supply price of labour for the different occupations—if some occupations are not to become progressively undermanned. In the short run, this may require a relative increase in wages in the more unattractive occupations, which appear to have been unduly low in the inter-war period for reasons already discussed. The changes which have occurred since then in the relative position of different industries appear to have been in general conformity with this need. The establishment of appropriate wage differentials, especially with regard to the longer run requirements for the allocation of labour, does not appear, however, to have been a primary objective of official policy in most countries, although wage policies and mechanisms for adjustments in wage rates have varied widely. The main purpose of Government intervention in wage determination, in most instances, has been the prevention of excessive increases in the general level of money wages, and attempts to influence wage differentials have necessarily been subordinated to this aim. The question thus arises whether the narrowing of wage differentials between workers of varying skills may lessen the attractions needed—over the longer run—to maintain or expand the supply of labour in the more skilled branches.¹

This problem has already presented itself acutely in countries endeavouring to achieve a rapid industrial growth and expansion of production, together with a corresponding shift in the allocation of man-power, and has led to the introduction of substantially increased wage differentials between workers of different degrees of skill combined with increased emphasis on incentive payments designed to raise

¹ In Sweden, for instance, the persistent shortage of man-power in the iron and steel industry may be partly attributed to the relative decline of wages in this industry which used to have a high position on the wage scale. In the Netherlands, the narrowing of the difference between skilled and unskilled workers' wages is generally considered to have gone so far as to discourage the acquiring of skill.

In countries, such as Italy and Austria, where the levelling of wages is largely the result of a heavy fall in the general standard of living, a widening of wage differentials may be expected to occur as real wages return to a more normal level.

labour productivity. This has been particularly true in eastern European countries, where wage systems have been introduced essentially similar to that adopted in the Soviet Union in the early 1930's following a period when wage differentials had progressively narrowed.² Under the system now prevailing in eastern European countries, all workers have been reclassified into standard groups according to their qualifications. In each industry, six to eight categories have commonly been established, with basic wage rates in the highest categories usually amounting to about two and a half times those in the lowest. In addition, industries have been divided according to their relative importance in the economy into broad groups with standard basic wage differentials between them. The principal objects of the reclassification appear to have been, first, to increase rewards for skill and qualifications, and, second, to improve the relative position of heavy and investment goods' industries in relation to light industry. These aims of the new wage system are consistent with the emphasis on heavy industry which is common to the development plans for these countries, and also with the shortage of skilled labour and the need to shift workers from rural to urban occupations which arises from the rapid expansion of industry in relatively under-developed areas.

Apart from these changes in the structure of wage differentials, the other main feature of the wage reforms in eastern European countries has been, as in the Soviet Union, the widespread introduction of systems of incentive payment. The rapid increase in the use of piece rates, which is the main method of encouraging individual effort, is indicated by the figures given in Table 7 covering the few countries for which information of this nature can be assembled. These include only two eastern European countries—Czechoslovakia and Hungary—and also five western European countries. It will be seen that, in 1946, the proportion of industrial workers paid at piece rates was relatively high in Sweden, but otherwise was not

² The radical reform of the wage system introduced in the Soviet Union in 1931 greatly increased the difference between the wages of skilled and unskilled workers and increased wages in heavy industries such as coal mines, electric power stations, the oil industry and engineering very substantially in relation to wages in light industries. At the same time, incentive wage payments were introduced as widely as possible as well as the system of competition between workers under which special awards and even social status are granted to workers according to their individual performance. (See *Bolshaya Sovietskaya Entsiklopediya*, SSSR, Moscow, 1948, pages 1116 and 1117.)

Table 7
PROPORTION OF HOURS WORKED IN INDUSTRY
AT PIECE RATES

Percentages

Country	1938	1946	1947	1948	1949
Czechoslovakia ^a	..	38	48	55	..
Denmark	41	37	36	40	41
Germany	..	..	..	..	37 ^b
Hungary ^c	..	36	58	73	70
Norway ^d	39 ^e	41	47	50	57
Sweden	48	52	54	56	..
United Kingdom ^f	34	..	38	..	38

NOTE. — The figures show the proportion of total hours worked in the manufacturing and mining industries paid at piece rates except for the United Kingdom where the figures refer to the proportion of the total number of workers in industry (excluding coal mining) paid wholly or partly at piece rates.

^a End of year.

^b September. Western zones of Germany only.

^c Figures for October 1946, February 1947, August 1948 and May 1949.

^d Second quarter of each year.

^e 1940.

^f October of each year.

greatly different in the countries covered by the table. Since then there has been an extremely rapid increase in both of the eastern European countries shown, especially in Hungary, and also a rather substantial rise in Norway, another country endeavouring to effect a rapid expansion in its industrial produc-

tion. With regard to the other three countries, however, there has been only a slight further increase in the already high ratio in Sweden, a moderate rise in Denmark, bringing piece rates up to about the 1938 proportion, and little change in the United Kingdom. As may be seen from Table 8, the differences between countries do not appear to be primarily attributable to differences in their industrial structure or in the proportion of men to women in industry, but rather the use of piece rates is generally more developed throughout all sectors in some countries than in others.

While it is impossible, with the available information, to assess the effects of these wage reforms in eastern European countries either in drawing forth the required supply of labour or in increasing productivity, it appears that during the past few years certain difficulties have arisen over the application of the new schemes, and that to some extent their two main objectives—the rationalization of differentials and the introduction of piece rates—may tend to conflict. The main problem of the system appears to lie in the inevitable difficulty of assessing the norms, or standard rates of output, upon which piece rates are based. In principle, the basic rates of pay to be granted in different industries, and hence the basic differentials

Table 8
PROPORTION OF HOURS WORKED AT PIECE RATES BY SELECTED INDUSTRIES

Percentages

Industry	Denmark ^a			Hungary ^{b c}		Norway ^a			Sweden ^c		United Kingdom ^d		
	1938	1947	1949	1947	1949	1938	1947	1948	1938	1947	1938	1947	1949
<i>Men :</i>													
Metals and engineering	47	44	46	67	77	56	69	80	60	67	39	48	49
Chemicals	36 ^e	36 ^e	36 ^e	43	62	27	55	64	31	46	5	9	11
Paper and printing	5	4	5	54	66	..	19 ^f	23 ^f	50	51	5	4	5
Textiles	40	40	40	79	82	14	27	30	35	36	29	29	33
Clothing	..	..	..	69	76	54	49	56	30	37	36	28	31
Food, drink and tobacco	15	17	18	24	35	10	9	10	5	6	8	6	7
<i>Women :</i>													
Metals and engineering	68	65	67	..	..	61	66	75	57	66	55	53	53
Textiles	58	55	54	..	..	55	59	60	68	66	64	58	62
Clothing	20	25	34	..	..	40	40	46	54	62	41	36	44
Food, drink and tobacco	60	52	51	..	..	46	34	38	32	30	27	22	22

NOTE. — The figures show the proportion of total hours worked in the manufacturing and mining industries paid at piece rates except for the United Kingdom where the figures refer to the proportion of the total number of workers in industry (excluding coal mining) paid wholly or partly at piece rates.

^a Third quarter of each year.

^b Men and women.

^c Average for each year.

^d October of each year.

^e Including rubber.

^f Paper only.

between industries, are established centrally. The assessment of the norms or standard rates of output corresponding to the basic rates of pay must necessarily, however, be established in each industry and enterprise. In so far as norms are set unduly low or high, therefore, different occupations may become more or less attractive in terms of net earnings than would correspond to their relative priorities as laid down in the scale of wage differentials which the basic rates of pay represent. Although relatively little information is available on the actual experience of these new wage systems, it appears that in Hungary difficulties of this sort arose during the past year. Owing to the varying degrees of strictness with which norms were first established, relative earnings in different occupations tended to become distorted, and there was a high rate of turnover of workers who moved from one industry to another in search of jobs where the norms were easiest to fulfil. To counteract this instability of the labour force, special legislation was enacted reducing, for example, social and other benefits for workers who changed jobs too often. At the same time, the norms in Hungary have twice been revised, in July 1949 and in July 1950, on each occasion the actual performance during a few previous weeks being established as the new norm for every industry, and new basic rates of pay were laid down.

The fact that it has been necessary to make these over-all revisions of the norms, which must tend to counteract the incentive effects of the piece-rate system, suggests that fairly general maladjustments of the level and structure of wages must have arisen. It should be noted, however, that, independently of such over-all readjustments, it is necessary to raise norms (*i.e.*, to lower piece rates) whenever new equipment or new methods enable more to be produced with the same effort. If this is not done, the benefits of increases in productivity will go largely to the workers in those industries where they occur, and this may aggravate the problem of adjusting wage differentials in different industries in conformity with their requirements for labour.

While difficulties of this nature appear to be inevitable, particularly when piece rates are introduced at

such a rapid rate, and may be overcome as experience is gained in the establishment of norms, the introduction of piece rates on this scale appears to have raised one other problem. This is the difficulty of maintaining the stability of the general level of wages, and thereby avoiding an upward movement of wages and prices, if money earnings are so generally linked to productivity. Although any increase in money earnings under this system is automatically matched by an increase in output, this may not avoid inflationary consequences if the increase in productivity is concentrated in the capital goods industries rather than the consumers' goods industries.

* * *

In conclusion, it may be said that the structure of wages has changed very similarly in all European countries since the war. In general, wages in primary and heavy industry have increased in relation to other sectors, and wage differentials have tended to narrow. These changes, which are largely the result of the rise in money wages and the continuing maintenance of full employment since the war, appear in certain respects to have tended to create a more rational wage structure than that which arose in the inter-war period, although in some cases wage differentials may have been excessively narrowed. If the problem of preventing undue increases in the general level of money wages again becomes of major concern under a resurgence of inflationary pressure, as now seems possible, it is likely to become urgent, especially in western European countries, to adapt the wage negotiating machinery as well as labour policy more consciously to the need for assuring the required distribution of labour and particularly the recruitment of new entrants into the skilled labour groups. This may require in part the establishment of wider wage differentials according to the varying degrees of skill necessary in different lines of work, but it is also likely to entail the expansion of training facilities open to the youth of all classes whereby the community, or industry itself, bears part of the heavy costs incurred in preparing for the more skilled occupations.

Appendix

SOURCES AND METHODS USED IN THE ARTICLE "CHANGES IN THE STRUCTURE OF WAGES IN EUROPEAN COUNTRIES"

The data shown in the various tables have been taken from published official or semi-official statistics. The details of the sources used, together with the adjustments made, are given below for each country.

1. RELATIVE MOVEMENT OF WAGES IN PRIMARY AND SECONDARY INDUSTRY (Tables 1 and 2)

The indices used for agriculture refer to male agricultural workers' money wages in summer. In general, they have been related to industrial earnings in the third quarter of each year. The indices of wages in forestry refer to winter earnings. These have been related to industrial earnings of men and women in the first quarter of each year. The inclusion of women in the figures for industry will, in so far as women's earnings have increased proportionately more than men's earnings, tend to raise the indices for industry and hence to lower the derived ratios shown in Tables 1 and 2.

The following sources have been used :

Belgium : *Industry*. *Bulletin d'Information et de Documentation*, Banque nationale de Belgique. The figures are averages for June and September.

Agriculture and coal mines. *Bulletin de l'Institut de recherches économiques et sociales*, Université catholique de Louvain. The figures for coal mines refer to both underground and surface workers and are averages for July to September.

Denmark : *Industry*. For 1914-1931 : *Statistiske Meddelelser*, 4. Raekke, Vol. 78 and Vol. 91 (weekly earnings for skilled adult men). For 1931-1938 : *Statistisk Årbog* (average hourly earnings for skilled men). For 1938-1949 : *Statistiske Efterretninger* (average hourly earnings in third quarter).

Agriculture. For 1914-1938 : *Landbrugets Produktion og Okonomi*, Landbrugsraadet, 1946, p. 132, and *Undersøgelser over landbrugets driftsforhold*, Det landøkonomiske Driftsbureau, Vol. XXXIII, Part II, p. 20 (yearly money wages). For 1938-1949 : *Statistiske Efterretninger* (daily wages of male workers 17 to 20 years of age).

Finland : *Industry and agriculture. Social Tidskrift*. For industry the indices given separately for each sex have been combined on the basis males 62 : females 38. The figures for agriculture refer to earnings of male workers excluding board.

Forestry. *Ekonomiska Utredningar* 1949, Finlands Banks institut för ekonomisk forskning, linked to data shown in *Social Tidskrift* for private forestry hewers.

France : *Industry*. *Revue française du travail*. Indices based on January 1946 have been linked to data shown in the April 1947 issue. The figures are averages of July and October.

Coal mines. *Bulletin de la Statistique générale de la France*. The figures refer to the third quarter.

Germany : *Statistische Berichte Arb. VI*, supplement to *Wirtschaft und Statistik*. For industry, the figures are averages of June and September. For coal mines, the figures are averages of July to September.

Ireland : *Irish Trade Journal and Statistical Bulletin* and *Statistical Abstract of Ireland*. The figures for industry refer to average hourly earnings in the production of transportable goods at the date of the census of production.

Italy : *Bollettino Mensile di Statistica*. The figures for agriculture refer to unmarried male workers.

Netherlands : *Maandschrift van het Centraal Bureau voor de Statistiek*.

Norway : For 1914-1938 : *Fagbevaegelsens økonomiske Problemer*, Arbeidernes Opplysningsforbund, Oslo, 1939, p. 104 ; *Statistiske Oversikter* 1948, pp. 364 and 367. For 1938-1949 : *Statistiske Meldinger*.

Industry : For 1914-1938 the series for industry refers to average earnings for men in the home market industries. For 1938-1949 the series relates to average hourly earnings of males and females combined on the basis males 78 : females 22.

Agriculture : The series for agriculture relates to daily summer wages for workers excluding board.

Forestry : The series for forestry relates to daily wages of hewers.

Spain : *Comercio, Industria y Navegación de España*, Consejo superior de las Cámaras oficiales de Comercio, Industria y Navegación de España, June-July 1948. Wages in agriculture are compared with average of wages for all other activities.

Sweden : For 1914-1938 : *Arbetslössetsutredningens Betänkande*, I, Stockholm, 1931, p. 163 ; *Lönestatistisk Årsbok* 1943, pp. 28 and 70. For 1938-1949 : *Sociala Meddelanden* and *Statistisk Årsbok för Sverige*.

Industry. From 1914 to 1938 the series for industry refers to average daily earnings for all workers ; from 1938, the figures refer to hourly earnings. Hourly earnings of both sexes were calculated by averaging earnings on the basis males 80 : females 20, and were linked to the general average for both sexes and adjusted to the third quarter by means of the index of hourly earnings in industry based on February 1947.

Agriculture. For agriculture, the series of daily earnings of casual labourers for 1913-1939 has been linked with similar data on an hourly basis for 1939-1949.

Forestry. Daily earnings of hewers.

Switzerland : *La vie économique* and *Rapport annuel adressé par la Suisse à FAO*.

United Kingdom : For 1906-1949 : A. L. Bowley, *Wages and Income in the United Kingdom since 1860*, Cambridge, 1937, and *London and Cambridge Economic Service*. The comparison of agriculture and industry for 1914-1924 is based on average weekly earnings and for 1924-1949 on indices of weekly wage rates. The comparison of coal mining and industry is based on average weekly earnings.

For 1938-1949 : *Ministry of Labour Gazette*, and *The N.F.U. Information Service*, National Farmers' Union, London. The series for industry refers to weekly rates of wages ; for agriculture, the figures refer to the minimum weekly wages of men in England and Wales ; for coal mining, they refer to average cash earnings per man-shift.

United States : *Handbook of Labor Statistics, 1947*, Bureau of Labor Statistics, United States Department of Labor ; *Crops and Markets, 1949*, Bureau of Agricultural Economics, United States Department of Agriculture ; *Monthly Labor Review*, Bureau of Labor Statistics, United States Department of Labor.

The comparison of agriculture and industry is based on monthly earnings in agriculture and weekly earnings in manufacturing. The comparison of coal mining and industry is based on average hourly earnings in bituminous coal mines and average hourly earnings in manufacturing.

2. COMPARATIVE LEVELS OF EARNINGS IN SELECTED INDUSTRIES (Tables 3, 4 and 5)

The figures of average hourly earnings in selected industrial groups have been taken from official statistics, details of which are listed below. Where necessary, industries have been re-grouped to conform, as far as possible, to the standard classification of industrial groups adopted. The averages for each industrial group were computed, as far as possible, on the basis of the numbers employed in a base year. In all instances, the figures include both skilled and unskilled workers.

Belgium : *Recensement économique et social de 1937*, figures reproduced in *L'économie belge en 1947* ; *Revue du Travail* 1949, p. 1194 ; *Industrie*, Revue de la Fédération des Industries Belges, May 1950. Figures of earnings per day have been converted to an hourly basis by assuming an 8-hour working day.

Czechoslovakia : *Statistický Zpravodaj*, June 1948. The figures refer to hourly wage rates.

Denmark : *Statistiske Efterretninger*.

Finland : *Social Tidskrift*.

France : *Bulletin de la Statistique générale de la France*. The figures for the several industries represent wage rates in various occupations in Paris and the provinces combined to give a national average.

Germany : For 1938 : *Statistisches Handbuch von Deutschland, 1928-1944*. For 1948 and 1949 : *Statistische Berichte* Arb. VI., supplement to *Wirtschaft und Statistik*. The figures for skilled and unskilled workers have been combined.

Hungary : For 1938 : *Annuaire Statistique de la Hongrie*. For 1948 and 1949 : *Gazdaságstatisztikai Tájékoztató* (Economic Statistical Bulletin), March 1949.

Ireland : *Irish Trade Journal and Statistical Bulletin*, June 1950.

Italy : For 1938 : *Bollettino Mensile di Statistica*, 1938-1939. Hourly earnings have been derived from the total wage bill and number of hours worked. For 1948 and 1949 : *Relevazioni Statistiche sulla occupazione operaia e la disoccupazione in Italia*, Ministero del Lavoro.

Netherlands : *Statistisch Zakboek*, supplemented by data furnished by the Centraal Planbureau.

Norway : *Statistiske Meldinger*.

Poland : *Sprawozdanie Komisji Zw. Zawodowych, 1945-1949*, Warszawa, 1949, p. 37 (Trade Union Report for 1945-1949).

Sweden : For 1938 and 1948 : *Lönestatistisk Årsbok för Sverige*. For 1949 : *Meddelanden från socialstyrelsens utredningsbyrå*.

Switzerland : *La vie économique*, Enquête d'octobre sur les salaires.

United Kingdom : For 1938 : R. B. Ainsworth, "Earnings and Working Hours of Manual Wage-earners in the United Kingdom in October 1938", *Journal of the Royal Statistical Society*, Vol. CXII, Part 1, 1949. For 1948 and 1949 : *Ministry of Labour Gazette*.

United States : *Monthly Labor Review* ; *Handbook of Labor Statistics, 1941*, Bulletin No. 694-695, both published by the Bureau of Labor Statistics, United States Department of Labor.

3. RELATIVE MOVEMENT OF WAGES FOR WOMEN AND MEN AND FOR UNSKILLED AND SKILLED WORKERS
(Table 6)

Austria : *Österreichisches Institut für Wirtschaftsforschung*.

Belgium : *Bulletin d'Information et de Documentation*, Banque nationale de Belgique ; *L'Economie Belge en 1948* ; *Industrie*, Revue de la Fédération des Industries Belges.

Denmark : *Statistiske Efterretninger*.

Finland : *Social Tidskrift*.

France : *Bulletin de la Statistique générale de la France* ; *Revue française du Travail*, 1947 ; *Revue internationale du Travail*.

Germany : *Statistisches Handbuch von Deutschland 1928-1944*. *Statistische Berichte* Arb. VI, supplement to *Wirtschaft und Statistik*.

Italy : *Bollettino Mensile di Statistica*.

Netherlands : *Statistiek der Lonen*, January/March 1950.

Norway : *Statistisk Årbok for Norge*, 1949, p. 262 ; *Statistiske Meldinger*.

Sweden : *Sociala Meddelanden*.

Switzerland : *La vie économique*, June 1950.

United Kingdom : *Ministry of Labour Gazette* and *London and Cambridge Economic Service*. The indices for skilled and unskilled workers in the engineering industry are those of the weekly wage rates of fitters and labourers.

4. PROPORTION OF HOURS WORKED IN INDUSTRY AT PIECE RATES (Tables 7 and 8)

Czechoslovakia : Minutes of Trades Union Congress held in Prague on 12 December 1949, and statement of the Minister of Labour and Social Welfare, Evžan Erban.

Denmark : *Statistiske Efterretninger*.

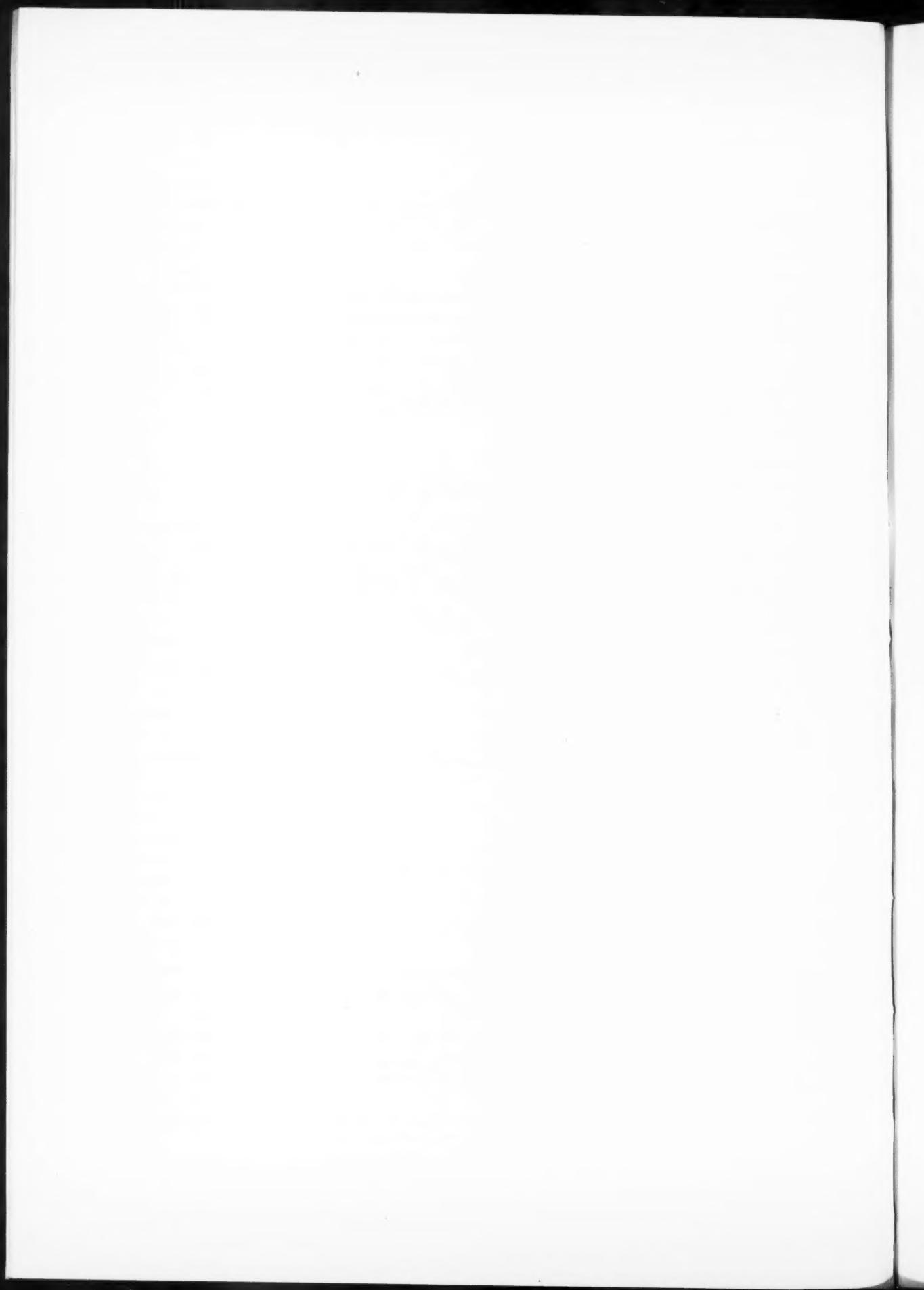
Germany : *Wirtschaft und Statistik*.

Hungary : *Monthly Bulletin of the National Bank of Hungary*, No. 10-12, 1946, p. 109, and No. 1-2, 1947, p. 6 ; *Gazdaságstatisztikai Tájékoztató* (Economic Statistical Bulletin), No. 6, 1949.

Norway : *Arbeids Lønninger*, Norges Offisielle Statistiek.

Sweden : *Lönestatistisk Årsbok för Sverige*.

United Kingdom : *Ministry of Labour Gazette*. The figures exclude coal mining, for which no data are available.



EUROPEAN ECONOMIC STATISTICS¹

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(in pocket on back cover)

SYMBOLS EMPLOYED

The following symbols have been used throughout this BULLETIN :

- .. = not available
- = nil or negligible
- * = provisional estimate by the Secretariat of the
Economic Commission for Europe

In referring to combinations of years, the use of an oblique stroke—*e.g.*, 1948/49—signifies a 12-month period (say from 1 July 1948 to 30 June 1949). The use of a hyphen—*e.g.*, 1947-1949—signifies the full period of calendar years covered (including the end years indicated) either as an average or total, as specified.

Unless the contrary is stated, the standard unit of weight used throughout is the metric ton. The definition of "billion" used throughout is one thousand millions. Minor discrepancies in totals and percentages are due to rounding.

¹ For notes on the sources and methods used in the compilation of the statistics, see pages 84 to 89.

Table I
INDEX NUMBERS OF INDUSTRIAL PRODUCTION

Country	1938 = 100			1948 = 100				1950	
	1947	1948	1949	1949				First quarter	Second quarter ^a
				First quarter	Second quarter	Third quarter	Fourth quarter		
Austria	56 ^b	89 ^b	119 ^b	112	133	139	150	150	156
Belgium	106	114	116	105	104	95	102	102	101
Bulgaria	145	175	227	132	..	148	130	161	..
Czechoslovakia	87 ^b	103 ^b	111 ^b	104	111	101	116	..	..
Denmark	128	139	144	104	108	100	114	113	122
Finland	117	133	141	104	106	99	113	110	113
France	92	108	118	112	117	101	112	109	114
Saar	50	69	85	122	123	125	131	130	121
Germany : western zones	33	50	75	139	146	148	162	164	178
Greece	70	75	90	107	115	121	130	127	141
Ireland	122	140	151	100	107	105	117	114	123
Italy	93	98	104	97	111	108	110	111	121
Luxembourg	89	118	113	113	104	88	80	92	97
Netherlands	94	113	127	107	111	109	122	117	121
Norway	115	128	138	112	111	94	114	121	119
Poland	104 ^c	135 ^c	166 ^c	117	121	127	134	..	..
Spain	127 ^d	127 ^d	130 ^d	95	104	99	110	110	115
Sweden	141	150	156	106	107	103	110	110	112
United Kingdom	115	128	137	107	107	102	112	117	116
Total of countries listed : including Germany ^e	86	100	114	111	114	109	119	121	125
excluding Germany	103	116	125	107	110	104	113	115	118
U.S.S.R.	93 ^f	118 ^f	141 ^f	..	..	..	..	..	..
United States ^g	210	216	197	98	91	88	90	95	102

^a Provisional.
^b 1937 = 100.

^c Post-war production in post-war territory has been related to 1938 production in the pre-war territory.

^d 1935 = 100.
^e Western zones only.

^f 1940 = 100.
^g Adjusted for seasonal movements

Table II
INDEX NUMBERS OF ENGINEERING PRODUCTION

Country	1938 = 100			1948 = 100				1950	
	1947	1948	1949	1949				First quarter	Second quarter ^a
				First quarter	Second quarter	Third quarter	Fourth quarter		
Austria	56 ^b	98 ^b	152 ^b	134	146	151	190	181	185
Belgium	113	126	122	102	104	92	89	88	90
Czechoslovakia	97 ^b	120 ^b	131 ^b	108	109	102	118	..	..
Denmark	140	156	163	105	106	95	112	115	120
Finland	175	211	230	108	108	99	119	117	116
France	98	120	141	116	128	112	113	109	112
Germany : western zones	22	39	66	157	161	161	188	189	220
Greece	19	27	31	106	113	108	134	115	142
Ireland	143	215	206	88	95	91	109	110	118
Italy ^a	70	80	90	109	113	109	120	123	128
Netherlands	93	122	146	112	120	121	126	123	130
Norway	130	148	149	109	106	83	106	108	106
Sweden	154	160	168	102	102	98	100	101	102
United Kingdom	132	151	164	107	109	104	114	118	119
Total of countries listed : including Germany ^c	78	97	116	117	121	115	127	127	133
excluding Germany	113	132	147	109	114	106	115	115	118

^a Provisional figures.

^b 1937 = 100.

^c Western zones only.

Table III
INDEX NUMBERS OF CHEMICAL PRODUCTION

Country	1938 = 100			1948 = 100					
				1949				1950	
	1947	1948	1949	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter ^a
Austria	77 ^b	145 ^b	167 ^b	93	121	125	123	134	136
Belgium	130 ^c	150 ^c	152 ^c	104	106	97	..	..	..
Czechoslovakia	102 ^b	124 ^b	134 ^b	105	110	101	116	..	..
Denmark	100	114 ^d	126 ^d	113	110	102	118	123	130
Finland	154	178	188	103	105	100	113	117	125
France	97	114	114	104	105	89	101	103	108
Germany : western zones	34	49	69	135	140	141	148	155	177
Greece	59	63	81	114	126	136	138	121	110
Ireland	103	109	122	113	111	104	122	132	124
Italy	85	93	101	97	107	116	105	105	122
Netherlands	83	105	110	106	103	98	112	..	..
Norway	111	119	158	126	132	126	150	163	182
Poland	147 ^e	215 ^e	..	..	..	..	..	..	..
Sweden	163	183	..	..	..	..	..	..	..
United Kingdom	161	184	189	104	105	96	107	111	115
Total of countries listed :									
including Germany ^f	91	111	123	109	113	107	115	119	127
excluding Germany	119	141	149	104	107	99	109	111	116

^a Provisional.^b 1937 = 100.^c 1936-1938 = 100.^d The indices for 1948 and 1949 have been linked to an estimated index relating 1947 to 1938.^e Post-war production in the post-war territory has been related to 1938 production in the pre-war territory.^f Western zones only.

Table IV
INDEX NUMBERS OF TEXTILE PRODUCTION

Country	1938 = 100			1948 = 100					
				1949				1950	
	1947	1948	1949	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter ^a
Austria	31 ^b	51 ^b	77 ^b	132	147	148	179	194	177
Belgium	130	116	120	102	103	98	110	117	107
Czechoslovakia ^c	60 ^b	77 ^b	81 ^b	105	110	90	118	..	..
Denmark ^c	108	134	140	106	105	91	119	123	131
Finland	97	110	125	111	115	107	121	125	128
France	89	102	101	103	107	86	102	107	111
Germany : western zones	25	41	75	153	175	184	217	224	221
Greece	90	89	100	106	108	115	125	125	142
Ireland	139	152	167	112	103	98	128	123	131
Italy	92	91	99	108	118	108	112	113	116
Netherlands	87	105	122	111	115	110	127	130	129
Norway	124	144	154	114	112	87	112	123	119
Sweden ^c	125	137	144	108	107	101	105	102	99
United Kingdom	81	95	102	108	105	102	114	120	117
Total of countries listed :									
including Germany ^d	74	85	96	111	115	107	122	126	126
excluding Germany	86	96	101	107	109	99	112	116	116

^a Provisional.^b 1937 = 100.^c Including ready-made clothing.^d Western zones only.

Table V
INDEX NUMBERS OF BUILDING MATERIALS PRODUCTION ^a

Country	1938 = 100			1948 = 100				1950	
				1949					
	1947	1948	1949	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter ^b
Austria	49 ^c	108 ^c	143 ^c	77	139	166	145	98	160
Belgium	91 ^d	95 ^d	70 ^d	68	68	74	85	80	86
Czechoslovakia	92 ^c	110 ^c	112 ^c	82	107	111	109	..	..
Denmark	112	127	136	86	115	114	112	93	124
Finland	104	128	142	93	111	138	106	96	120
France	105	125	127	105	106	92	101	101	108
Germany : western zones	31	53	78	120	151	163	160	133	178
Greece	59	87	99	105	110	116	127	107	131
Ireland	146	207	251	116	127	112	129	118	126
Italy	90	94	109	92	123	119	121	122	150
Netherlands	72	95	111	111	104	116	129	125	126
United Kingdom	128	150	156	104	104	101	107	108	109
Total of countries listed :									
including Germany ^e	83	103	113	101	112	113	116	109	124
excluding Germany	107	125	129	97	104	103	108	104	114

^a Comprising production of bricks, tiles, cement, glass, ceramics and other non-metallic mineral products.

^b Provisional.
^c 1937 = 100.

^d 1936—1938 = 100.
^e Western zones only.

Table VI
INDEX NUMBERS OF EMPLOYMENT IN INDUSTRY

Country	1938 = 100			1948 = 100				1950	
				1949					
	1947	1948	1949	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter ^a
Austria	121 ^b	139 ^b	154 ^b	105	109	112	115	115	116
Belgium	117 ^b	120 ^b	112 ^b	97	96	92	90	88	89
Czechoslovakia	98 ^b	104 ^b	108 ^b	104	103	104	107	..	..
Denmark ^c	131	138	144	102	107	98	112	113	119
Finland	124	130	130	100	101	101	101	103	103
France	106	109	111	102	102	102	102	102	102
Germany : western zones	88	99	107	108	108	108	110	109	111
Ireland	118	122	125	102	103	103	104	105	105
Italy	105	105	104	98	99	100	97	96	97
Netherlands	129	145	152	105	105	106	107	107	108
Norway	132	143	148	104	104	104	106	107	107
Poland	120 ^d	136 ^d	158 ^d	109	112	118	125	..	..
Sweden	130	131	132	101	101	100	101	100	100
Switzerland	148	151	141	97	95	93	92	91	90
United Kingdom	108	113	115	101	101	101	102	103	103
Total of countries listed :									
including Germany ^e	104	110	114	103	103	103	105	105	105
excluding Germany	108	113	116	102	102	102	104	104	104

^a Provisional.

^b 1937 = 100.

^c Quarterly indices refer to man-hours worked.

^d Post-war employment in the post-war territory has been related to 1938 employment in the pre-war territory.

^e Western zones only.

Table VII
PRODUCTION OF COAL ^a

Monthly averages or calendar months

Millions of tons

Country	1938	1948	1949	1949				1950			
				First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	April	May
Belgium	2.47	2.22	2.32	2.46	2.39	1.99	2.44	2.43	2.30	2.35	2.22
Czechoslovakia	1.32	1.48	1.42	1.51	1.37	1.32	1.47	..	..	..	..
France	3.88	3.61	4.27	4.46	4.21	4.04	4.35	4.54	4.10	4.02	4.11
Saar	1.20	1.05	1.19	1.16	1.14	1.20	1.25	1.28	1.23	1.17	1.26
Germany :											
U.K./U.S. Zone	11.54	7.38	8.73	8.45	8.25	8.99	9.24	9.41	8.79	8.49	8.79
Soviet Zone	0.50	0.24	0.26	..	..	..	..	..	..	..	..
Netherlands	1.12	0.92	0.97	0.95	0.94	0.99	1.01	1.03	1.00	0.96	1.00
Poland	5.88 ^b	5.86	6.17	6.03	5.95	6.23	6.49	6.56	6.19	6.29	6.02
United Kingdom	19.32	17.73	18.23	18.47	18.07	17.25	19.12	19.00	18.26	16.39	19.24
Other European countries	1.08	1.62	1.70	1.68	1.72	1.67	1.73	1.75	1.73	1.67	1.80
Total Europe (excluding U.S.S.R.)	48.31	42.11	45.26	45.43	44.30	43.94	47.36	47.77	45.30	42.96	46.17
Index numbers :											
1938 = 100	100	87	94	94	92	91	98	99	94	89	96
1948 = 100	115	100	107	108	105	104	112	113	108	102	110
United States ^c	29.84	49.64	36.11	41.70	43.01	28.49	31.25	32.27	44.92	43.68	45.49

^a Excluding lignite.^b Post-war boundaries.^c Including a small amount of lignite.

Table VIII

PRODUCTION OF ELECTRIC POWER

Monthly averages or calendar months

Millions of kilowatt-hours

Country	1938	1948	1949	1949				1950			
				First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	April	May
Austria	250	400	394	317	425	445	390	387*	462*	..	..
Belgium	440	659	680	710	657	626	728	719	648	669	651
Czechoslovakia	338	626	689	703	645	..	..	..	..	..	..
Denmark	95	148	154	156	133	144	182	170	148	153	149
Finland	259	232	290	284	286	271	320	343	327	340	363
France ^a	1,548	2,297	2,367	2,303	2,341	2,240	2,584	2,568	2,541	2,504	2,570
Germany : western zones	2,790	2,804	3,317	3,236	3,084	3,284	3,663	3,517	3,285	3,277	3,306
Italy ^b	1,095	1,641	1,467	1,355	1,513	1,534	1,465	1,557	1,819	1,598	1,907
Netherlands	295	422	499	501	449	450	597	592	522	528	530
Norway	827	1,037	1,265	1,323	1,199	1,115	1,424	1,515	1,358	1,409	1,374
Poland	643 ^c	626	679	681	610	649	776	783	677	..	..
Spain ^d	229	509	420	411	407	389	475	548	533	513	551
Sweden	680	1,189	1,342	1,365	1,280	1,249	1,475	1,553	1,433	1,430	1,483
Switzerland ^d	446	720	647	531	729	708	621	597	766	649	793
United Kingdom ^e	2,031	3,877	4,093	4,553	3,673	3,461	4,685	4,956	4,108	4,310	4,255
Other European countries	1,974	2,023	2,144	2,134	1,975	2,064	2,401	2,416	2,189	2,185	2,205
Total Europe (excluding U.S.S.R.)	13,940	19,210	20,447	20,563	19,406	19,279	22,544	22,999*	21,555*	21,372*	22,048*
Index numbers :											
1938 = 100	100	138	147	148	139	138	162	165	155	153	152
1948 = 100	73	100	106	107	101	100	117	120	112	111	115
United States	11,950	28,028	28,711	29,117	27,882	28,599	29,248	30,777	31,095	30,191	31,486

^a Production of hydro-electric plants with a generating capacity of over 1,000 kilowatts and of thermo-electric plants with a capacity of over 5,000 kilowatts.^b About 90 per cent of total production.^c Post-war boundaries.^d Public utility production only.^e Authorized undertakings only. Excluding Northern Ireland.

Table IX
PRODUCTION OF CRUDE STEEL

Monthly averages or calendar months

Thousands of tons

Country	1938	1948	1949	1949				1950			
				First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	April	May
Belgium	190	326	321	382	339	275	286	296	293	284	294
Luxembourg	120	204	189	236	204	169	149	179	187	180	182
France	518	604	760	759	776	731	775	665	721	697	726
Saar	213	102	147	144	147	147	148	147	130	125	137
Germany	1,633 ^a	491	821	..	..	..	..	..	..	..	..
of which western zones	1,492	463	763	716	769	807	760	941	950	907	938
Soviet Zone	141	28	58	..	..	..	..	..	..	..	1,006
Italy	194	177	171	150	184	172	179	185	186	178	193
Poland	158 ^a	163	192	190	186	191	200	206	205	..	..
Sweden	81	105	113	115	110	104	124	131	115	114	115
United Kingdom	880	1,260	1,318	1,343	1,351	1,233	1,344	1,412	1,403	1,427	1,405
Other European countries	373	518	572	545	567	581	595	602	624	608	632
Total Europe (excluding U.S.S.R.)	4,360	3,950	4,604	4,624	4,688	4,474	4,629	4,844	4,899	4,806	4,913
<i>Index numbers:</i>											
1938 = 100	100	91	106	106	108	103	106	111	112	110	113
1948 = 100	110	100	117	117	119	113	117	123	124	122	124
United States	2,400	6,701	5,895	7,286	6,623	5,778	3,895	6,716	7,528	7,450	7,758

^a Post-war boundaries.

Table X
PRODUCTION OF CEMENT

Monthly averages

Thousands of tons

Country	1938	1948	1949	1949				1950	
				First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter
Belgium	250	278	244	192	251	263	269	222	300
Czechoslovakia	106 ^a	138	145	106	168	159	146	..	..
France ^b	296	448	537	466	569	540	573	507	620
Germany	1,162 ^c	..	..	..	..	..	..	..	..
of which western zones	955	464	705	513	721	835	751	583	942
Soviet Zone	207	..	..	..	..	..	..	..	..
Italy	384	262	336	232	371	379	363	329	436
Poland ^d	254 ^c	152	195	154	210	223	193	156	237
Sweden	83	124	141	93	150	174	148	118	174
United Kingdom ^d	653	722	780	737	805	804	776	787	829
Other European countries	540	785	902	728	958	966	956	865	1,042
Total Europe (excluding U.S.S.R.)	3,728	3,446	4,113	3,316	4,334	4,482	4,321	3,809	4,950
<i>Index numbers:</i>									
1938 = 100	100	92	110	89	116	120	116	102	133
1948 = 100	108	100	119	96	126	130	125	111	144
United States ^d	1,497	2,885	2,951	2,491	3,069	3,208	3,038	2,376	3,262

^a 1937.^b Artificial cements only.^c Post-war boundaries.^d Portland cement only.

Table XI

PRODUCTION OF MOTOR VEHICLES

Monthly averages

Thousands

Country	1938	1948	1949	1949				1950	
				First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter
PASSENGER CARS									
Czechoslovakia	1.05 ^a	1.49	..	..	..	..	..	..	..
France	15.20 ^b	8.34	15.64	12.76	16.08	14.06	19.66	17.52	23.40
Germany : U.K./U.S. Zone .	14.51 ^c	2.50	8.67	5.36	7.29	9.78	12.23	14.23	16.62
Italy	4.92	4.39	6.46	5.38	4.99	6.71	8.77	8.54	9.33
United Kingdom	28.42	27.90	34.36	32.06	33.51	33.15	38.71	43.79	43.71
Total of countries listed . . .	64.10	44.62	66.80	57.26	63.61	65.08	81.24	86.06	95.25
<i>Index numbers :</i>									
1938 = 100	100	70	104	89	99	102	127	134	149
1948 = 100	144	100	150	128	143	146	182	193	213
United States ^d	166.75	325.77	425.72	350.92	441.66	525.04	385.26	447.60	583.80
COMMERCIAL VEHICLES									
Austria	0.10 ^a	0.08	0.18	0.13	0.15	0.19	0.25	0.25	0.20
Czechoslovakia	0.33 ^a	0.62	..	..	..	..	..	..	..
France	3.28 ^b	7.80	7.87	8.71	9.03	6.81	6.94	6.36	8.37
Germany : western zones . .	3.56 ^c	2.47	4.74	4.35	4.48	4.87	5.26	4.65	6.31
Italy	0.85	0.56	0.73	0.57	0.66	0.75	0.94	1.05	1.12
United Kingdom	8.67	14.44	18.03	17.24	17.44	16.99	20.45	22.11	22.57
Total of countries listed . . .	16.79	25.97	32.17	31.63	32.41	30.12	34.52	35.21	39.44
<i>Index numbers :</i>									
1938 = 100	100	155	192	188	193	179	206	210	235
1948 = 100	65	100	124	122	125	116	133	136	152
United States ^d	40.68	114.68	94.10	107.70	97.75	95.92	75.05	94.89	120.48

^a 1937.^b October 1937-September 1938.^c 1936.^d Factory sales.

Table XII
PRODUCTION OF LIVESTOCK PRODUCTS

Commodity and producer country	Monthly average	Index numbers — 1947 = 100								
		1947	1948	1949	1949				1950	
					First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter
<i>(thousands of tons)</i>										
<i>Meat a</i>										
Austria b	6.2	103	85	90	92	69	92	..	..
Belgium	14.2	130	169	151	164	166	193	156	199	
Czechoslovakia	36.0	61	66	80	46	48	89	..	..
Denmark	33.6	71	98	88	83	97	125	124	123	
Finland	5.8	..	103	88	98	109	119	93	95	
Germany : western zones c	40.9	54	138	100	99	143	210	207	230	
Ireland	11.4	88	91	79	77	91	118	97	85	
Italy d	8.4	138	157	161	130	129	212	177	142	
Norway	6.8	70	103	66	85	85	175	89	86	
Portugal e	4.1	144	161	166	173	156	154	154	154	
Sweden f	18.8	89	105	93	105	101	121	109	119	
Switzerland g	4.3	95	120	108	120	111	139	135	133	
United Kingdom	66.4	102	120	81	96	140	164	104	120	
<i>Milk h</i>										
Austria i	389	114	155	132	156	166	164	174	..	
Czechoslovakia	1,954	93	108	96	109	119	109	..	..
Denmark	3,319	99	119	93	137	135	112	110	153	
Germany : western zones	7,045	100	130	94	145	154	126	129	179	
Netherlands j	2,334	127	153	104	202	186	121	125	216	
Norway j	523	113	135	113	168	142	117	139	188	
Sweden j	2,767	98	108	92	120	120	98	104	131	
Switzerland j	1,061	116	123	101	144	144	104	102	146	
United Kingdom k	5,492	112	120	112	145	109	113	127	153	
<i>Butter l</i>										
Austria i	1.0	118	159	136	161	172	167	148	..	
Czechoslovakia	1.6	119	156	150	150	175	156	..	..
Denmark	10.4	97	125	94	145	141	120	115	169	
Germany : western zones	14.5	100	136	94	161	168	122	114	168	
Ireland m	2.2	110	133	25	167	228	111	34	193	
Netherlands n	4.4	135	160	89	211	204	135	122	246	
Norway	0.7	112	135	105	225	140	72	109	222	
Portugal	0.1	113	125	88	150	125	138	170	250	
Sweden	7.9	95	104	85	118	118	94	96	132	
Switzerland	1.2	89	98	69	123	125	75	81	141	
United Kingdom	0.6	125	156	119	340	96	72	208	507	
<i>Cheese l</i>										
Austria i	0.3	116	216	171	246	249	197	300	..	
Czechoslovakia	1.0	110	118	109	113	158	94	..	..
Denmark	3.8	124	139	100	182	153	104	108	142	
Germany : western zones	6.6	117	189	103	217	241	192	138	..	
Ireland	0.3	81	104	11	141	167	96	15	130	
Netherlands n	5.4	151	197	110	264	272	141	102	231	
Norway	1.0	119	179	127	268	197	125	200	313	
Portugal	0.1	110	130	120	140	120	150	90	80	
Sweden	4.0	108	138	103	169	165	112	108	135	
Switzerland	3.0	127	136	82	182	190	89	76	..	
United Kingdom n	1.4	156	200	185	327	183	101	301	488	

a Comprising production of beef, veal, mutton, lamb, pork and goat meat, unless otherwise stated.

b Including horse meat. Obligatory deliveries.

c Including horse meat and slaughter fat.

d Data for communes of more than 50,000 inhabitants.

e Inspected slaughter.

f Excluding home slaughter.

g Data for 47 towns.

h Total production of fluid milk.

i Market deliveries.

j Milk delivered by farmers.

k Milk sold through milk marketing schemes.

l Creamery and factory production.

m Production of co-operative creameries only.

n Including farm production.

Table XIII
INDEX NUMBERS OF PRICES

Country	1938 = 100		1948 = 100								
	1947	1948	1949			1950					
			Jan.	Aug.	Nov.	Jan.	Feb.	March	April	May	June
WHOLESALE PRICES											
Austria	296 ^{ab}	313 ^a	116	138	141	159	162	166	164	164	161
Belgium	357	391	100	93	93	94	94	93	93	94	94
Czechoslovakia	315	331	103	104	..	..	..	..	..	..	..
Denmark	207	227	103	100	104	109	110	111	111	112	111
Finland	724	956	100	102	104	105	105	107	108	111	114
France	989	1,712	114	112	117	121	120	123	122	122	119
Germany : U.K./U.S. Zone . . . . .	..	158	121	118	125	124	125	124	124	125	125
Greece	18,320	25,620	114	119	119	121	124	120	118	115	115
Ireland	219 ^c	232 ^c	100	99	101	102	103	103	104	103	104
Italy	5,159	5,443	105	90	89	87	87	87	86	86	86
Netherlands	265	275	103	101	109	111	114	114	113	113	114
Norway	175	181	101	103	102	103	104	104	112	112	113
Portugal ^d	241	240	105	100	103	103	103	102	105	102	101
Spain	421 ^e	451 ^e	104	108	112	112	114	114	119	117	119
Sweden	179	193	101	100	102	102	103	103	103	103	104
Switzerland	209	217	99	95	92	91	90	90	90	91	91
Turkey	433	466	109	106	105	103	103	101	99	95	92
United Kingdom	189	216	101	105	110	111	112	112	114	116	117
United States	193	210	97	93	92	92	93	93	93	95	95
COST OF LIVING											
Austria	219	321	115	134	137	141	137	135	132	131	135
Belgium	293	352	100	97	97	96	96	95	94	94	94
Denmark	163	166	102	101	101	103	..	..	105	..	106
Finland	590	795	101	103	105	106	107	108	109	111	119
France . . . . .	..	1,250 ^f	115	114	118	121	124	123	124	125	124
Germany : U.K./U.S. Zone ^g . . . . .	..	161	104	97	97	96	96	95	95	97	94
Greece	17,500	24,700	113	113	114	120	123	122	117	118	119
Hungary	462 ^h	483 ^h	93	..	84	83	..	83	..	..	..
Iceland	407 ⁱ	416 ⁱ	101	102	105	106	108	110	112	116	120
Ireland	177	183	100	101	101	..	101	..	..	103	..
Italy	4,575	4,844	103	101	99	98	98	97	98	98	100
Luxembourg	276	293	102	111	109	109	108	108	108	108	108
Netherlands	199 ^j	205 ^j	105	105	108	112	114	116	116	116	118
Norway	160	159	99	103	100	101	101	101	104	105	105
Poland	12,500	13,200	104	102	104	112	113	..	..	..	..
Portugal	211 ^k	205 ^k	104	103	106	108	106	105	110	104	101
Spain	424 ^l	453 ^l	103	105	109	113	114	115	115	115	115
Sweden	147	154	102	102	102	..	..	102	..	..	102
Switzerland	158	163	100	99	99	98	97	97	97	97	97
Turkey	326	330	104	107	108	109	110	109	108	108	103
United Kingdom	170	181	101	103	104	105	105	105	106	105	105
United States	158	170	100	99	98	97	97	98	98	98	99

^a March 1938 = 100.^b Fourth quarter 1947.^c October 1938 = 100.^d Wholesale prices in Lisbon.^e 1936 = 100.^f September 1948.^g The annual index for 1948 refers to June-December, and the monthly indices are based on that period.^h August 1939 = 100.ⁱ First quarter 1939 = 100.^j July 1938/June 1939 = 100.^k June 1938/June 1939 = 100.^l July 1936 = 100.

Table XIV

INDEX NUMBERS OF THE VALUE OF RETAIL SALES

Corresponding quarter previous year = 100

Country and item	1949				1950	
	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter
Austria ^a	Total	171	224	182	162	143
	Food	149	159	156	116	134
	Clothing (including textiles)	214	360	227	195	154
Denmark	Total	104	104	107	105	110
	Food	104	103	103	103	108
	Clothing	109	111	120	112	115
Finland	Total	119	110	113	121	139
Germany : western zones	Total . . . . .	..	..	..	..	105
	Food . . . . .	..	..	..	..	102
	Textiles . . . . .	..	..	..	..	125
Netherlands ^b	Total	104	104	103	103	105
	Food	105	107	103	101	106
	Clothing	112	114	111	118	110
Norway	Total	102	104	111	114	..
	Food ^c	103	105	114	118	..
	Clothing (including textiles) ^c	100	101	119	132	..
Sweden	Total . . . . .	..	..	..	..	..
	Food	101	103	104	103	104
	Clothing (including textiles)	95	100	93	95	104
Switzerland	Total	97	100	111	96	100
	Food	100	101	97	98	101
	Clothing (including textiles)	94	98	93	93	101
United Kingdom ^d	Total	109	111	107	112	110
	Food	108	108	107	111	112
	Clothing	120	123	103	117	108

NOTE. — The index numbers generally refer to a sample of all retail trade unless otherwise indicated. For details and sources, see "Notes to the Statistics".

^a Sales of specialized stores, department stores and co-operatives.

^b Total consumer expenditure, excluding gas, water, electricity and services.

^c Towns only.

^d Sales of department stores, concerns operating multiple retail shops, a representative sample of retail co-operative societies and a small number of individual traders.

Table XV. — BALANCE OF PAYMENTS OF EUROPE AND OTHER AREAS WITH THE UNITED STATES
Millions of current dollars

Item	Year and quarter	United Kingdom	Other European countries	Total Europe	European dependent overseas territories ^a	Overseas sterling area ^b	Canada	Latin-American republics	Other overseas countries ^c	International institutions	Total World
A. Goods and services (total)	1949 - II	-138	-840	-978	-57	-144	-272	-203	-354	-16	-2,024
	1950 - I	-58	-455	-513	+15	+44	-52	+23	-200	-21	-704
	II	+31	-423	-392	+5	+51	-134	-108	-137	-24	-739
Exports to the United States	1949 - II	69	212	281	83	225	388	612	169	2	1,761
	1950 - I	63	241	304	79	269	404	716	187	—	1,961
	II	74	230	304	65	202	477	636	219	—	1,993
Imports from the United States	1949 - II	228	1,058	1,286	125	325	569	689	461	—	3,455
	1950 - I	132	730	862	59	195	396	600	336	—	2,448
	II	104	757	861	53	202	530	633	302	1	2,582
Services (net)	1949 - II	+21	+27	+27	-15	-44	-91	-126	-62	-19	-330
	1950 - I	+11	+34	+45	-5	-30	-60	-93	-51	-23	-217
	II	+61	+104	+165	-7	-39	-81	-111	-54	-23	-150
B. Private donations and capital (total)	1949 - II	-16	+42	+26	-3	+29	+33	+67	+74	+2	+231
	1950 - I	-3	+52	+49	+4	+28	-47	+50	+50	-54	+63
	II	+4	+57	+61	+4	+25	-90	+29	+49	-54	+24
Private donations	1949 - II	+8	+87	+95	+1	+4	+1	+3	+21	+2	+126
	1950 - I	+5	+72	+77	+4	+4	-1	+6	+26	+2	+109
	II	+5	+73	+78	+4	+4	-1	+22	+22	+2	+111
Private United States capital	1949 - II	-12	-37	-49	+3	+24	+29	+65	+51	+1	+122
	1950 - I	+2	-13	-11	+4	+24	+79	+45	+25	+1	+122
	II	+21	+7	+28	+4	+21	+18	+45	+11	-1	+90
Foreign long-term capital ^d	1949 - II	-12	-8	-20	-1	+1	+3	-1	+2	-23	-17
	1950 - I	-10	-7	-17	-1	-	-79	-1	-1	-23	-122
	II	-22	-23	-45	-1	-	-71	-22	+16	-55	-177
C. Surplus or deficit on goods and services, private donations and capital (A + B)	1949 - II	-154	-798	-952	-57	-115	-239	-136	-280	-14	-1,793
	1950 - I	-61	-403	-464	+18	+72	-52	-24	-150	-41	-641
	II	+35	-366	-331	+9	+76	-224	-79	-88	-78	-715
D. Official financing (total)	1949 - II	+264	+1,094	+1,658	+1	+31	+93	-62	+300	+52	+2,073
	1950 - I	+22	+561	+583	-6	+2	+15	+24	+117	+33	+768
	II	-43	+539	+496	-10	+5	+32	+39	+70	+70	+702
United States Government grants and credits	1949 - II	+294	+1,046	+1,340	-	-	+1	+14	+266	+40	+1,661
	1950 - I	+201	+666	+867	-	+1	+4	+10	+189	+34	+1,097
	II	+217	+749	+966	-	+1	+4	+10	+154	+27	+1,162
Foreign dollar balances in the United States	1949 - II	+108	+93	+201	+6	-26	+91	-94	+41	+24	+243
	1950 - I	-99	57	-156	-5	-6	+12	+55	-45	+14	-126
	II	-260	-187	-447	-9	-6	+27	+29	-79	+54	-431
Monetary gold movements	1949 - II	+162	-45	+117	-5	+57	+1	+18	-7	-12	+169
	1950 - I	-80	-48	-128	-1	+2	+1	-35	-27	-15	-203
	II	-23	-23	-23	-1	+10	+1	-5	-5	-11	-29
E. Errors, omissions and multilateral settlements	1949 - II	-410	-296	-706	+56	+84	+146	+198	-20	-38	-280
	1950 - I	-39	-158	-119	-12	-74	-37	-40	+33	+8	+8
	II	+8	-173	-165	+1	-81	+192	+40	+18	+8	+13

Sources: Rearranged from Survey of Current Business, United States Department of Commerce, June 1950, and from data for the second quarter of 1950 furnished directly by the International Economics Division, United States Department of Commerce.
Note. — The signs are reversed as compared with the original source in order to present the data from the standpoint of Europe and other areas specified rather than from that of the United States. For further details, see "Notes to the Statistics".

^a Excluding those of the United Kingdom and Spain.
^b Including the dependent overseas territories of the United Kingdom.

^c Including the dependent overseas territories of Spain.
^d Official and private.

Table XVI

INDEX NUMBERS OF PRICES OR AVERAGE UNIT VALUES OF IMPORTS AND EXPORTS
Third quarter 1949 = 100

Country	In national currencies											In U.S. dollars	
	1949				1950							1950	
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May	June	July	First quarter	Second quarter
<i>Prices :</i>													
United Kingdom													
Imports	99	106	108	110	112	113	115	118	119	119	121	79	82
Exports	100	100	101	102	103	103	104	104	105	105	107	72	73
Switzerland													
Imports	98	93	92	91	90	91	91	90	87	88	89	91	88
Exports	99	95	95	94	93	92	94	91	96	97	91	93	94
Denmark													
Imports	101	101	102	103	110	111	112	113	113	113	115	77	79
Exports	100	96	96	96	94	94	93	93	93	93	94	65	65
Sweden													
Imports	103	117	118	119	120	120	119	119	119	120	123	83	83
Exports	100	106	108	110	114	115	116	118	120	126	132	80	84
Finland ^a													
Imports	113	115	119	120	122	123	131	135	133	134	137	74	79
Exports	103	100	101	101	109	110	110	113	113	114	..	65	67
<i>Average unit values :</i>													
France													
Imports	101	100	107	108	107	119	118	116	118	125	..	89	93
Exports	101	98	102	104	104	110	106	105	102	103	..	83	80
Belgium													
Imports	101	98	96	99	99	100	101	102	99	106	103	88	90
Exports	97	96	94	93	89	89	85	86	87	88	89	77	76
Netherlands													
Imports	99	103	108	111	108	115	114	114	116	119	117	78	81
Exports	97	104	103	109	114	114	112	114	110	110	102	79	78
Italy													
Imports	99	96	96	95	95	94	92	91	93	94	..	86	85
Exports	98	97	98	99	100	106	98	101	98	94	..	93	90
Norway													
Imports	100	103	108	115	117	113	114	121	117	117	117	80	82
Exports	99	102	105	98	98	102	105	101	104	107	107	71	72
Germany : western zones ^b													
Imports	100	114	103	106	109	107	106	108	107	107	108	85	85
Exports	95	98	95	91	93	91	88	87	90	92	90	72	71
Austria													
Imports	98	103	104	118	138	159	157	157	164	170	156	71	77
Exports	102	108	108	127	135	137	137	134	140	141	143	64	65

Second quarter 1949 = 100.

^b The index for the third quarter 1949 has been estimated for the three western zones on the basis of the index for the U.K./U.S. Zone.

Table XVII
INDEX NUMBERS OF THE VOLUME OF IMPORTS AND EXPORTS OF EUROPEAN COUNTRIES
1938 = 100

Country	IMPORTS												EXPORTS												
	1938 (millions of dollars, c.i.f.)				1948				1949				1950				1948				1949				1950
	1st qr.	2nd qr.	3rd qr.	4th qr.	1st qr.	2nd qr.	3rd qr.	4th qr.	1st qr.	2nd qr.	3rd qr.	4th qr.	1st qr.	2nd qr.	3rd qr.	4th qr.	1st qr.	2nd qr.	3rd qr.	4th qr.	1st qr.	2nd qr.	3rd qr.	4th qr.	1st qr.
United Kingdom	4,161	80	81	82	80	82	88	91	88	85	94	94	2,291	126	134	139	147	156	146	142	159	170	166		
Ireland	202	140	139	107	124	122	126	121	138	137	142	118	62	58	76	86	77	82	93	103	84	87			
France	1,322	88	111	105	107	106	107	98	102	114	107	863	69	107	94	106	127	137	120	147	150	160			
Netherlands	774	78	85	86	89	95	93	90	99	116	129	579	48	63	64	81	85	83	95	122	107	116			
Belgium-Luxembourg	765	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Switzerland	363	165	158	128	135	121	112	107	135	119	126	301	106	124	121	152	114	120	124	143	114	125			
Italy	586	..	..	..	..	..	..	..	120	137	119	95	128	130	549	..	..	..	..	..	..	..	..	..
Turkey	119	101	93	125	122	111	106	135	149	114	150	122	71	69	59	175	126	118	62	174	113	94			
Denmark	334	68	80	87	99	109	113	98	109	136	125	335	73	64	67	81	83	91	87	112	102	112			
Sweden	523	101	116	109	98	89	89	95	97	111	111	463	67	91	95	106	80	101	106	123	114	128			
Norway	293	81	97	95	127	109	124	110	124	132	129	193	83	88	72	82	90	86	73	87	111	107			
Finland ^a	183	56	95	85	102	65	77	77	93	77	92	181	38	63	84	76	45	65	89	109	57	98			
Germany : U.K./U.S. Zone	1,340	31	52	66	55	61	80	79	102	..	..	1,230	14	19	26	31	34	39	43	53	..	..	
western zones	1,607	..	..	..	..	..	..	..	..	..	..	1,469	..	..	..	..	..	..	..	..	..	..	..
Austria ^b	289	37	45	53	57	65	77	81	92	84	76	171	42	55	63	71	73	77	68	73	81	100			
Poland	247	145	148	124	129	129	148	164	204	..	..	223	76	92	104	127	95	94	106	121	..	..	
Czechoslovakia	292	121	112	99	101	95	132	121	120	..	..	358	67	79	72	95	75	90	83	110	..	..	
Total ^c	12,194	84	92	90	91	90	97	95	102	103	105	9,013	74	87	89	102	99	101	100	116	117	122			

^a For comparability with other countries, the seasonal adjustment in the official Finnish index has been eliminated.

^b Excluding non-commercial imports.

^c The totals are based on data for the countries listed in the table (including western zones of

Germany only) and on estimates for Iceland and Portugal. Although it covers 90 per cent of the total trade of Europe in 1949, this sample is not quite representative for Europe as a whole since the volume of trade compared with pre-war for the countries not included in the sample is different from that of the countries included in the sample.

Table XVIII
IMPORTS AND EXPORTS OF TEN EUROPEAN COUNTRIES ACCORDING TO AREAS OF ORIGIN AND DESTINATION
Millions of dollars in current prices; imports c.i.f.; exports f.o.b.

Area of origin for imports and area of destination for exports ↓	Year and quarter	United Kingdom		France		Netherlands		Belgium-Luxembourg		Switzerland		Italy		Denmark		Sweden		Norway		Germany: western zones a		Total of ten countries		
		Imp.	Exp.	Imp.	Exp.	Imp.	Exp.	Imp.	Exp.	Imp.	Exp.	Imp.	Exp.	Imp.	Exp.	Imp.	Exp.	Imp.	Exp.	Imp.	Exp.			
		Imports b	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports			
I. United Kingdom, Ireland and Iceland	1949—I	55.2	80.4	30.4	58.8	67.4	49.2	43.9	44.0	15.7	7.5	17.7	26.0	65.8	54.9	47.9	35.8	36.5	22.9	16.4	26.7	398.9	406.2	
	II	63.0	83.6	38.6	70.0	53.0	60.7	39.9	61.2	16.6	9.7	15.9	23.5	68.0	86.6	47.6	57.6	43.4	20.8	11.2	21.3	388.1	495.0	
	III	62.3	71.8	25.4	62.4	54.7	69.5	39.2	42.2	14.9	10.5	10.9	38.9	59.3	95.5	49.1	62.9	46.0	18.1	18.9	28.9	380.7	500.7	
	IV	49.9	60.0	30.9	57.2	37.7	45.1	41.4	28.0	17.6	10.8	15.2	27.9	59.4	62.3	43.9	40.1	37.2	12.4	18.0	24.0	351.2	367.8	
	1950—I	39.3	66.2	27.8	62.5	47.0	44.4	42.7	25.3	20.6	7.9	22.8	27.1	70.2	57.3	47.0	32.4	51.0	18.3	23.2	20.0	391.6	361.4	
	II	40.0	60.2	30.7	68.6	55.2	48.0	46.5	31.1	19.7	7.3	20.2	34.0	59.8	78.7	59.8	42.9	35.8	18.3	21.4	19.9	389.1	409.0	
II. Western European industrial countries (France, Netherlands, Belgium-Luxembourg, Switzerland)	1949—I	173.8	150.1	45.6	97.0	118.5	65.0	98.9	112.7	47.8	40.1	37.8	42.7	39.0	35.5	54.3	37.9	33.1	18.6	52.9	109.1	701.7	708.7	
	II	210.3	133.5	52.0	104.1	110.4	63.0	104.4	115.1	41.5	40.7	40.2	40.2	31.1	17.3	53.6	46.7	38.4	13.2	68.0	120.4	699.9	694.2	
	III	200.7	127.4	71.3	89.0	99.3	82.7	105.3	108.7	38.1	43.7	43.4	42.2	23.8	18.7	56.8	49.5	29.7	13.9	96.4c	109.8	764.8	685.6	
	IV	139.7	111.0	74.2	87.1	99.8	85.5	115.4	114.2	46.8	42.9	37.7	54.9	19.2	23.8	39.0	40.2	25.5	9.8	113.4c	99.6	710.7	669.0	
	1950—I	151.6	139.4	85.0	93.7	121.3	70.3	109.4	149.6	39.5	41.5	49.9	56.8	31.6	16.8	39.0	33.0	27.4	12.1	147.6	147.9	802.3	761.1	
	II	169.6	128.6	73.8	97.8	122.9	61.3	107.1	143.0	40.4	42.9	46.9	56.4	32.9	11.3	46.0	38.6	26.1	10.5	137.1	169.1	802.8	759.5	
III. Mediterranean and Iberian countries (Italy, Greece, Spain, Portugal, Turkey and miscellaneous continental and non-continental European countries and territories)	1949—I	83.9	96.1	35.7	30.0	15.2	22.0	15.2	26.9	21.5	21.8	9.3	10.3	8.9	8.9	24.3	19.8	8.9	6.8	19.6	13.6	242.5	256.2	
	II	65.5	78.0	40.6	44.8	13.2	12.8	15.3	33.0	12.7	20.2	22.7	7.5	10.4	9.1	5.0	14.6	16.1	8.7	4.6	52.8	25.6	247.5	253.0
	III	80.1	71.2	24.6	33.2	11.4	17.6	14.7	27.3	18.6	21.6	4.6	11.0	8.9	3.9	11.0	19.2	5.2	4.9	26.9	26.7	206.0	236.6	
	IV	72.6	55.6	41.4	28.2	8.7	12.9	13.0	21.9	21.2	25.4	3.1	8.3	9.5	4.6	13.0	14.2	6.5	5.0	44.3	27.1	233.3	203.2	
	1950—I	71.1	62.6	47.8	30.6	12.0	12.6	14.1	30.2	19.5	25.9	4.6	7.1	12.6	6.3	16.8	11.7	6.8	5.6	46.3	40.7	251.6	233.3	
	II	68.1	63.5	44.6	43.3	10.0	12.8	16.4	31.4	23.0	32.9	6.5	12.2	8.6	5.7	11.7	12.7	6.3	5.8	29.1	57.8	224.3	278.1	
IV. Scandinavian countries (Denmark, Sweden, Norway, Finland)	1949—I	146.4	152.9	30.5	37.8	31.3	34.9	40.0	51.5	11.0	13.8	24.8	21.7	26.0	22.2	24.3	45.9	41.4	14.9	34.4	23.4	410.1	419.0	
	II	197.0	153.0	29.5	40.1	22.3	31.4	37.1	50.6	6.8	10.6	14.4	16.9	30.4	21.2	26.4	51.9	38.6	24.3	42.0	27.4	445.1	429.8	
	III	235.4	144.3	26.6	43.1	38.5	28.7	30.0	47.4	7.0	8.9	15.2	14.5	33.1	20.2	21.4	45.8	33.5	17.1	45.2	30.6	485.9	460.6	
	IV	148.0	132.8	35.5	33.6	32.1	31.5	23.4	30.8	11.3	7.0	10.2	13.7	23.1	25.8	22.9	40.3	33.3	13.6	45.8	25.0	385.6	354.1	
	1950—I	135.4	151.4	32.9	43.6	26.2	26.0	17.0	25.1	7.8	8.2	16.5	19.5	21.8	18.3	15.1	42.7	31.4	14.9	75.9	39.4	380.0	389.1	
	II	177.4	152.6	23.6	50.3	27.8	26.8	18.9	23.5	6.3	7.6	14.4	17.0	31.5	15.2	19.5	48.6	33.6	16.8	59.8	48.1	412.8	406.5	
V. Germany and Austria	1949—I	38.1	35.5	59.1	36.4	34.3	24.7	34.3	24.7	36.8	51.9	22.1	12.2	18.6	22.1	11.4	16.1	16.2	16.7	9.3	13.8	3.2	14.9	
	II	41.4	27.9	66.9	41.8	39.9	29.2	35.5	63.0	22.4	25.4	25.4	36.7	10.9	16.0	22.0	19.9	7.9	10.2	4.0	16.0	273.8	280.0	
	III	48.2	29.0	66.9	38.8	38.0	31.4	28.6	50.0	21.3	26.2	23.0	30.9	14.5	29.2	22.2	30.5	8.4	3.3	2.9	16.1	280.5	260.6	
	IV	26.1	27.6	54.0	35.5	26.0	59.9	28.6	33.7	23.0	24.5	36.6	10.5	24.7	18.6	26.9	6.6	5.6	3.7	17.2	22.1	302.6	302.6	
	1950—I	32.6	34.2	54.0	47.7	49.9	66.7	34.6	33.4	20.9	23.3	34.9	29.4	14.6	25.9	28.0	9.7	9.3	6.2	18.1	281.5	320.5		
	II	32.6	29.0	50.7	48.8	76.4	72.2	37.5	22.4	27.0	18.8	44.4	29.3	18.6	21.7	28.3	32.6	8.2	10.1	8.5	15.9	332.2	300.8	
VI. Eastern European countries (Czechoslovakia, Poland, Romania, Hungary, Yugoslavia, Bulgaria)	1949—I	41.0	19.8	18.0	15.7	28.4	15.7	9.9	15.9	12.1	12.6	22.5	13.2	18.2	6.6	37.2	18.2	12.5	8.9	19.2	9.4	219.0	136.0	
	II	35.8	26.5	20.1	20.7	22.3	13.4	13.6	20.9	13.4	16.6	16.6	10.7	23.3	23.1	7.1	8.8	24.8	7.9	24.8	7.9	175.0	157.0	
	III	38.2	24.9	12.8	20.6	19.5	18.6	10.1	19.4	11.1	15.4	20.0	15.8	13.5	6.5	13.7	17.0	7.3	7.1	16.5	12.4	162.7	157.7	
	IV	27.3	18.1	18.7	13.8	16.0	8.6	10.7	12.0	18.3	11.1	16.1	5.9	2.6	18.5	12.2	7.6	3.7	34.0	24.4	159.1	128.5		
	1950—I	26.9	14.4	13.0	12.8	12.8	7.0	6.9	11.2	11.3	11.6	15.0	12.6	5.4	16.8	13.0	7.3	4.6	19.3	25.6	147.6	121.5		
	II	26.9	12.0	7.4	10.3	10.8	9.0	7.5	10.5	10.0	12.3	14.4	15.2	6.2	2.6	14.0	13.2	3.9	4.0	17.1	31.9	118.2	121.0	
VII. Union of Soviet Socialist Republics	1949—I	9.1	9.4	1.7	—	0.9	3.6	1.1	9.0	0.6	2.4	0.3	3.7	1.1	1.3	0.4	3.8	0.8	2.7	—	—	16.0	35.9	
	II	10.5	4.4	1.8	—	10.1	1.9	1.8	2	0.6	1.0	0.3	2.0	0.4	0.0	0.3	6.0	8.0	6.2	0.6	—	28.3	39.8	
	III	9.2	8.4	0.5	0.2	8.6	1.3	1.5	6.5	0.8	0.8	7.9	3.7	1.6	2.0	1.1	5.5	7.9	5.0	0.1	—	39.7	34.1	
	IV	29.1	4.4	0.5	—	2.0	0.3	1.1	4.9	0.6	1.4	8.0	8.1	0.3	2.5	0.3	4.5	5.3	6.2	—	—	47.7	31.7	
	1950—I	22.4	12.2	1.0	0.1	2.0	0.1	0.1	0.1	0.5	0.7	5.2	6.5	0.8	0.7	0.3	3.7	1.7	2.0	0.4	—	32.5	28.9	
	II	22.4	1.6	1.2	1.2	1.0	0.9	1.2	1.2	1.2	1.2	1.2	1.2	0.7	0.7	0.7	0.7	0.7	0.7	0.7	—	—	223.7	206.3

1930—IV	29.1	4.4	0.5	2.0	0.3	1.1	4.9	0.6	1.4	8.0	2.1	0.3	1.9	1.1	5.7	7.9	5.5	0.1	—	39.7				
II	19.9	12.2	1.0	0.1	1.0	0.1	2.0	3.6	0.5	5.2	6.5	0.7	5.2	6.5	0.8	0.3	5.3	6.2	0.1	47.7				
II	22.4	5.5	1.6	0.9	1.2	0.1	1.7	6.1	0.3	0.7	6.2	0.7	0.3	0.7	0.3	3.7	1.7	2.0	0.1	32.5				
II	22.4	5.5	1.6	0.9	1.2	0.1	1.7	6.1	0.3	0.7	6.2	0.7	0.3	0.7	0.3	3.7	1.7	2.0	0.1	32.5				
VIII. Total Europe (including U.S.S.R.)	1949—I	547.5	544.2	221.0	275.7	286.0	215.1	243.5	311.9	130.8	110.4	131.0	139.7	170.4	145.5	204.6	178.1	144.5	88.6	145.7	197.1	2,237.3	2,206.3	
II	617.4	313.0	235.3	217.3	241.7	221.7	221.7	241.7	121.5	112.5	122.2	128.2	149.1	151.1	166.5	160.8	188.1	203.3	152.1	239.1	228.6	2,366.8		
III	674.1	477.0	228.6	287.3	270.0	249.8	238.6	309.5	112.5	112.5	122.2	128.2	149.1	151.1	161.3	182.3	225.3	138.0	69.9	206.9	224.5	2,320.3	2,275.9	
IV	492.7	409.5	255.2	255.4	222.3	243.8	230.9	244.2	133.2	140.7	109.8	165.6	127.9	145.7	156.7	178.4	122.0	56.3	258.5	217.3	2,109.2	2,205.6	2,215.8	
1930—II	537.0	451.4	232.4	232.4	320.0	304.3	230.1	235.6	268.0	126.7	122.6	148.6	170.3	158.3	135.3	160.1	193.3	117.1	67.7	273.0	342.7	2,313.1	2,301.4	
IX. United States and dependencies	1949—I	217.2	63.8	169.6	15.2	88.8	8.1	82.4	35.0	56.4	22.1	138.5	13.6	39.2	1.5	30.2	10.5	28.8	8.8	168.0	13.7	1,019.1	192.3	
II	233.2	40.2	187.3	11.7	89.4	11.6	83.9	18.3	48.2	21.9	172.0	8.3	41.2	1.4	25.3	13.5	35.1	6.2	202.5	10.4	1,118.1	143.5		
III	206.5	45.5	133.4	11.2	65.2	12.8	83.7	15.9	36.5	24.9	130.9	10.4	23.7	1.4	28.7	1.6	183.6	8.2	920.7	149.7	920.7	149.7		
IV	164.5	56.3	89.5	15.6	61.2	75.5	23.0	37.6	8.3	73.6	12.2	21.6	2.5	21.7	21.0	17.3	7.5	200.7	11.7	763.2	187.5	763.2	187.5	
1930—II	149.4	56.8	105.9	15.9	65.3	6.6	71.2	31.3	30.8	23.7	106.9	12.2	22.1	2.3	23.8	13.8	20.1	9.7	219.4	12.4	714.9	185.2	714.9	185.2
II	142.6	61.3	96.4	20.2	69.7	10.5	80.2	28.6	33.4	23.2	88.5	12.6	14.8	2.2	28.1	14.8	23.3	7.1	91.3	13.9	668.3	194.4	668.3	194.4
X. Canada and Newfoundland	1949—I	182.2	80.1	13.4	2.6	3.3	1.1	6.0	5.8	8.0	2.3	5.1	1.8	1.5	1.0	1.5	0.8	2.5	0.1	3.7	0.9	227.2	96.5	
II	210.2	79.4	11.1	3.4	2.8	1.1	16.9	6.9	5.2	2.2	1.6	0.9	0.4	1.4	0.9	3.9	0.2	7.5	1.9	261.5	98.0	261.5	98.0	
III	241.1	75.5	9.4	2.8	3.3	1.5	14.7	3.8	8.3	2.6	3.1	1.0	0.4	1.5	0.7	7.2	0.5	4.6	1.5	293.6	90.1	293.6	90.1	
IV	190.4	60.0	3.7	2.7	2.4	0.4	15.0	3.9	14.3	3.9	1.7	1.2	0.2	0.3	2.5	0.8	7.1	0.3	4.6	1.1	241.9	74.6	241.9	74.6
1930—II	119.9	71.7	8.7	0.7	1.3	0.7	8.7	3.9	5.1	3.0	1.1	1.2	0.2	0.4	0.8	2.2	0.2	2.8	1.1	146.9	84.8	146.9	84.8	
II	125.2	85.7	8.4	2.7	2.8	1.1	9.6	4.7	5.1	3.7	1.6	1.3	0.1	0.2	1.3	1.1	2.6	0.4	1.4	2.2	158.1	103.1	158.1	103.1
XI. Latin American republics	1949—I	180.4	149.1	44.6	35.3	38.4	9.5	38.8	35.4	17.3	22.8	32.9	64.5	5.6	1.2	21.5	21.9	6.8	4.1	20.5	4.9	406.8	348.7	
II	137.5	103.9	55.5	23.7	32.2	6.7	33.3	30.1	13.9	24.6	52.4	42.1	8.7	1.6	23.1	19.4	6.3	3.1	36.4	6.7	399.3	261.9		
III	199.9	135.3	40.6	40.8	40.1	8.6	39.0	32.3	4.7	9.0	36.8	40.2	5.5	2.9	21.8	24.0	6.8	8.9	47.5	13.4	1,135.9	1,023.3		
IV	136.5	105.8	47.4	24.6	11.3	34.1	30.9	16.7	23.0	26.1	17.7	3.2	3.0	14.0	20.5	3.3	4.1	42.1	10.7	347.9	327.8	347.9	327.8	
1930—II	133.8	98.8	64.3	69.0	28.0	7.6	36.9	26.7	17.2	18.2	38.3	38.0	3.5	3.3	19.5	21.3	4.6	3.8	26.2	19.5	772.0	667.5	772.0	667.5
II	193.1	104.5	58.5	36.5	32.7	9.6	28.6	23.0	21.2	24.1	41.3	32.9	4.3	4.0	27.5	21.8	8.1	6.2	48.8	25.2	464.1	287.8	464.1	287.8
XII. Overseas sterling area (including British colonies)	1949—I	771.5	843.6	109.3	15.8	24.4	23.3	34.6	27.6	9.3	15.6	50.9	37.6	3.4	2.7	19.6	18.2	6.0	9.3	37.8	11.0	511.9	464.5	
II	810.5	846.0	129.3	18.9	30.1	24.0	37.0	31.3	7.1	11.4	46.3	46.4	2.5	2.7	18.8	20.3	6.8	8.9	47.5	8.7	448.5	331.3		
III	743.3	807.5	121.1	18.4	19.4	20.0	30.5	32.3	4.7	9.0	37.8	46.0	3.1	2.3	21.7	16.4	4.9	6.7	42.9	18.3	1,029.4	976.9		
IV	540.4	563.0	88.8	14.0	22.3	12.7	29.6	17.3	7.7	9.1	26.1	17.7	3.2	1.7	9.7	12.9	3.6	5.9	34.0	13.2	430.5	343.9		
1930—II	619.6	610.0	112.6	14.7	36.6	13.9	15.9	12.6	6.8	12.6	22.4	3.0	3.1	14.2	13.1	8.1	6.2	65.6	16.8	941.7	724.9	941.7	724.9	
II	604.9	102.3	23.0	50.8	17.9	41.3	17.2	5.6	6.3	31.3	33.9	4.3	2.8	17.4	17.1	7.9	5.0	67.6	18.7	966.9	746.8	966.9	746.8	
XIII. Dependent overseas territories (excluding British colonies)	1949—I	110.2	248.0	320.1	50.3	53.6	44.5	30.2	9.8	6.0	10.4	5.3	1.3	1.7	15.3	3.3	6.9	0.5	15.2	2.9	511.9	464.5		
II	115.8	39.3	220.3	322.1	51.9	44.0	42.6	28.9	28.4	7.4	4.0	10.4	5.5	1.8	3.2	12.8	3.5	6.3	0.8	20.8	3.9	490.0	456.0	
III	81.8	44.9	205.0	259.8	52.6	41.5	39.0	28.4	28.4	7.4	4.3	12.8	4.1	1.5	3.2	14.3	3.2	3.8	0.5	19.2	3.9	429.3	393.1	
IV	76.5	26.7	206.2	248.2	36.3	27.9	27.9	42.4	22.6	7.3	13.1	4.5	0.7	2.9	12.8	3.0	5.5	0.6	29.7	3.3	430.5	343.9		
1930—II	83.2	31.2	192.5	255.2	41.1	28.2	40.2	27.6	5.8	4.1	12.8	6.3	3.4	1.9	10.4	3.1	7.2	0.5	40.1	4.2	436.7	362.3		
II	86.3	28.8	218.3	266.5	47.7	29.7	43.5	23.7	8.6	5.8	12.8	5.2	1.6	2.8	14.4	3.3	8.5	0.4	33.5	5.0	475.2	371.2		
XIV. Other overseas countries (excluding British colonies)	1949—I	136.1	116.6	55.6	27.0	7.1	9.8	8.6	17.7	12.0	37.3	22.3	1.9	4.3	12.3	11.8	5.8	3.4	21.1	6.0	287.8	227.7		
II	167.1	102.6	57.3	10.7	8.8	8.2	18.9	8.5	10.1	8.5	25.9	3.3	2.4	12.3	10.1	6.8	2.8	34.8	6.2	342.3	218.2			
III	102.9	105.1	41.4	25.6	8.9	7.9	7.8	14.0	9.1	9.2	27.7	22.2	3.6	3.1	14.7	9.9	4.4	4.7	24.5	6.8	245.0	208.5		
IV	49.5	80.6	29.2	19.3	5.6	6.4	9.2	11.5	11.3	22.7	14.6	3.8	2.0	12.6	8.7	4.1	4.3	25.9	5.9	174.1	165.4			
1930—II	96.6	84.7	52.4	23.5	13.0	10.9	11.7	17.1	10.2	10.0	28.8	18.9	4.7	2.4	14.6	8.9	7.9	2.4	12.8	14.2	302.5	190.3		
II	128.2	76.6	57.3	28.0	24.6	12.7	12.9	11.2	10.2	10.0	28.8	18.9	4.7	2.4	14.6	8.9	7.9	2.4	12.8	14.2	302.5	190.3		
XV. Total overseas countries	1949—I	1,598.0	1,294.1	640.5	416.0	212.3	105.4	214.9	151.7	112.8	77.6	265.1	145.1	52.9	12.4	100.4	66.5	56.8	26.2	266.3	39.4	3,520.0	2,334.4	
II	1,674.3	1,211.4	660.8	410.2	217.1	96.2	221.9	135.2	90.2	74.2	316.0	129.8	58.4	11.7	93.7	67.7	65.2	22.0	349.5	42.5	3,747.1	2,209.9		
III	1,575.6	1,213.8	546.1	374.0	209.6	133.6	82.8	76.8	52.9	123.9	42.6	13.3	102.7	69.0	50.4	21.6	14.4	46.7	3,366.5	2,149.6	3,366.5	2,149.6		
IV	1,157.8	892.4	464.8	374.0	152.4	65.6	91.1	82.3	163.3	92.4	32.6	12.4	73.3	66.9	40.9	21.7	14.3	45.9	2,729.6	1,766.7	2,729.6	1,766.7		
1930—II	1,202.5	953.2	532.4	362.7	185.3	68.7	208.0	122.5	82.4	66.0	221.6	96.1	38.1	12.5	81.6	60.1	48.7	24.6	273.7	64.9	2,874.3	1,851.3		
II	1,315.8	961.8	541.2	376.9	228.3	81.5	216.1	113.4	84.6	73.1	204.3	104.8	29.8	14.4	103.3	67.0	5							

Table XIX
IMPORTS AND EXPORTS OF FOOD AND FEEDING-STUFFS

Thousands of tons

Note. — Data cover imports from all sources and exports to all destinations, both European and non-European, by the countries listed in footnote (b) below. Except as there indicated, trade of eastern European countries is not included because of the lack of data on a sufficiently regular and detailed basis. Figures for 1938 are shown both for Europe as a whole (including the U.S.S.R. and the Baltic States) and, to provide comparability, for the countries covered by the post-war figures.

Commodity group <i>a</i>	TOTAL EUROPE		1948				1949				NINETEEN EUROPEAN COUNTRIES <i>b</i>				1950		
	1938		1938		First quarter		Second quarter		First quarter		Second quarter		Third quarter		Fourth quarter		
	Quarterly average		Quarterly average		First quarter		Second quarter		First quarter		Second quarter		Third quarter		Fourth quarter		
<i>Bread grain</i>																	
European imports	3,381	3,337	4,255	5,063	5,070	4,079	3,453	4,718	4,170	3,834	2,892	3,125	2,892	3,125	2,892	3,125	
of which United Kingdom	1,413	1,207	1,378	1,412	1,354	1,274	1,636	1,408	1,293	813	607	1,142	813	1,142	607	813	
Germany <i>b</i>	349	208	670	1,583	838	446	692	941	1,231	681	327	430	327	430	327	430	
Italy	85	245	46	95	395	596	815	385	186	299	319	264	319	264	319	264	
Belgium-Luxembourg	311	263	197	284	191	142	196	327	99	116	197	173	116	173	116	173	
European exports	1,125	273	53	56	66	210	418	117	49	200	442	318	442	318	442	318	
<i>Coarse grain (raw equivalent)</i>																	
European imports	3,060	3,054	2,103	1,928	1,590	2,012	2,576	1,933	1,647	2,242	2,768	2,142	2,768	2,142	2,768	2,142	
of which United Kingdom	1,038	442	739	656	678	581	269	146	321	537	819	98	819	98	819	98	
Germany <i>b</i>	640	284	245	218	232	504	484	196	681	430	430	430	430	430	430	430	
Belgium-Luxembourg	199	61	218	198	115	255	163	196	271	319	219	219	219	219	219	219	
European exports	582	127	148	145	46	71	109	47	29	65	119	89	119	89	119	89	
<i>Sugar</i>																	
European imports	1,166	1,155	637	1,423	1,330	1,219	770	1,145	1,259	1,116	845	1,345	845	1,345	845	1,345	
of which United Kingdom	761	334	810	652	564	448	776	737	644	492	670	670	492	670	492	670	
Germany <i>b</i>	4	65	167	187	132	22	30	104	116	42	126	126	42	126	42	126	
Netherlands	80	23	76	105	37	45	58	121	28	96	133	133	96	133	96	133	
France <i>b</i>	7	15	86	221	58	55	40	117	96	121	422	422	422	422	422	422	
European exports	363	332	310	420	243	482	317	323	266	643	471	422	471	422	471	422	
<i>Meat</i>																	
European imports	530	530	382	322	394	315	275	350	424	417	485	414	485	414	485	414	
of which United Kingdom	421	326	250	294	221	206	283	335	326	402	340	340	402	340	402	340	
European exports	201	138	60	37	46	60	66	82	130	115	104	104	115	104	115	104	
of which Denmark	62	31	11	15	15	24	29	35	68	61	46	46	61	46	61	46	
Ireland	49	23	13	13	21	32	26	22	28	38	29	22	38	29	38	22	
<i>Butter</i>																	
European imports	144	144	90	97	78	74	107	110	93	85	139	117	139	117	139	117	
of which United Kingdom	119	84	81	54	55	91	97	76	56	41	40	40	41	40	41	40	
European exports	88	71	24	34	38	40	32	54	64	47	60	60	47	60	47	60	
of which Denmark	39	21	28	29	27	24	40	41	33	30	47	47	30	47	30	47	
Netherlands	13	2	4	7	6	11	12	22	13	11	10	10	11	10	11	10	
<i>Cheese</i>																	
European imports	58	58	45	46	53	69	88	92	45	67	69	69	69	69	69	69	69
of which United Kingdom	37	36	49	33	37	39	56	69	68	41	41	41	41	41	41	41	41
European exports	102	102	66	60	54	54	62	61	59	48	46	46	46	46	46	46	46
of which Netherlands	65	62	42	41	39	39	62	61	59	50	47	47	47	47	47	47	47
<i>Eggs</i>																	
European imports	102	102	66	60	54	54	62	61	59	50	48	47	47	47	47	47	47

European exports	37	36	15	14	8	15	12	15	18	7	23	8	39	36	69	68	68	23	41	40
of which Netherlands			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Denmark			2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Netherlands			2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
<i>Eggs^a</i>																				
European imports	102	102	65	66	60	54	54	54	54	54	54	69	61	59	69	90	90	127	127	127
of which United Kingdom			23	12	14	42	20	10	10	10	10	17	38	45	32	37	47	62	75	75
European exports	84	60	24	12	10	8	5	5	5	5	6	25	20	12	17	19	29	6	19	18
of which Denmark			5	6	6	6	6	6	6	6	6	6	4	6	6	6	11	17	17	18
Ireland																				
Netherlands			22																	
<i>Fish</i>																				
European imports	249	218	57	95	78	64	64	64	64	64	64	260	303	210	194	244	220	220	145	145
of which Germany ^b			47	25	28	17	17	17	17	17	17	17	17	113	69	53	54	59	59	24
United Kingdom			19	14	16	19	19	19	19	19	19	19	19	34	26	18	47	49	49	32
Italy														31	13	15	31	24	24	25
France																		25	25	25
Belgium																		12	12	12
European exports	240	234	305	263	181	250	250	250	250	250	250	341	248	148	263	256	256	138	138	138
of which Norway			65	160	129	41	41	41	41	41	41	171	110	30	57	110	110	46	46	46
Iceland			24	35	51	45	49	49	49	49	49	39	33	42	47	33	33	16	16	16
Denmark			14	24	24	28	26	24	24	24	24	53	39	14	18	53	53	22	22	22
Netherlands			36	31	9	19	19	19	19	19	19							32	32	32
<i>Oil seeds</i>																				
European imports	1,814	1,790	508	676	603	727	727	727	727	727	727	941	961	781	821	764	777	777	777	777
of which United Kingdom			414	257	236	273	273	273	273	273	273	290	224	316	360	334	275	312	312	312
France			338	51	195	121	165	165	165	165	165	67	140	139	125	103	86	166	166	166
Germany			462	11	57	6	6	6	6	6	6	47	97	105	56	89	71	37	37	37
Belgium			183	50	42	71	71	71	71	71	71	45	38	28	22	29	47	47	47	47
Luxembourg			70	40	27	28	35	35	35	35	35	20	20	24	24	43	28	36	36	36
European exports	64	17	15	10	22	51	22	22	22	22	22	24	24	22	17	16	24	19	19	19
of which Turkey			2	3	6	20	20	20	20	20	20	41	11	17	15	10	10	9	9	9
<i>Animal and vegetable fats and oils</i>																				
European imports	427	413	320	390	332	305	305	305	305	305	305	365	464	383	479	499	639	639	639	639
of which United Kingdom			102	163	218	151	113	149	149	149	149	197	167	188	125	125	306	306	306	306
Germany			100	16	36	32	34	40	40	40	40	99	44	51	72	72	133	111	111	111
Italy			24	13	10	5	15	18	18	18	18	25	25	51	48	53	53	47	47	47
France			22	24	29	31	40	45	45	45	45	29	22	22	22	29	47	47	47	47
Belgium			20	35	27	31	26	20	20	20	20	24	24	24	24	24	28	36	36	36
European exports	249	237	66	105	87	120	93	117	93	117	93	30	47	33	136	122	122	131	131	131
of which Norway			27	20	40	22	31	17	14	14	14	19	28	24	24	24	24	24	24	24
Netherlands			74	9	9	15	15	17	14	14	14	9	10	16	11	11	14	18	18	18
Belgium-Luxembourg			12	3	2	3	3	9	9	9	9	10	10	11	11	11	14	17	17	17
<i>Coffee</i>																				
European imports	188	185	85	105	113	119	119	105	105	105	105	107	112	125	115	115	116	116	116	116
of which France			47	11	18	20	22	14	22	22	22	21	19	24	24	24	33	35	35	35
Belgium			13	16	23	20	19	19	19	19	19	12	13	13	13	13	17	17	17	17
Luxembourg			4	9	16	10	15	12	12	12	12	11	8	8	8	8	17	17	17	17
United Kingdom																				
<i>Tea</i>																				
European imports	66	62	56	37	44	73	65	56	40	35	44	64	56	56	56	86	55	26	26	26
of which United Kingdom																	48	48	48	48
<i>Tobacco</i>																				
European imports	92	88	52	42	84	74	66	59	59	59	59	74	20	10	10	108	62	59	59	59
of which United Kingdom			34	19	9	48	38	5	5	5	5	38	2	13	13	38	23	9	9	9
Germany			23	3	2	2	2	2	2	2	2	2	2	2	2	2	2	10	10	10
France			6	6	2	3	3	5	5	5	5	5	6	7	5	5	6	4	4	4
Netherlands			7	6	2	2	3	3	3	3	3	38	42	34	17	36	39	22	22	22
European exports	47	29	10	19	20	11	25	11	11	11	11	27	25	9	9	18	20	7	7	7
of which Turkey			11	7	5	1	3	1	1	1	1	3	9	1	1	1	8	8	8	8
Greece																				

a For the composition of the commodity groups and information on conversion factors employed, see ECONOMIC SURVEY OF EUROPE IN 1949, Appendix B, page 260.

b The countries whose trade is included throughout the table are: United Kingdom, Iceland, Ireland, France, the Netherlands, Belgium-Luxembourg, Switzerland, Italy, Greece, Spain, Portugal, Turkey, Denmark, Sweden, Norway, Finland, Germany, Czechoslovakia, and Austria. In addition, Polish imports and exports are included in bread grain and sugar. The coverage for Sweden is incomplete, the published monthly trade returns giving only the most important items in each commodity group, which, however, usually make up from 80 to 90 per cent of its total trade. For Germany, the 1938 data refer to the whole of the pre-war territory; the post-war figures refer to the three western zones. The Saar formed part of the German trade area in 1938, but beginning with the first quarter of 1948, its trade is included with that of France.

Table XX — IMPORTS AND EXPORTS OF SELECTED INDUSTRIAL MATERIALS

Thousands of tons

Note. — Data cover imports from all sources to all destinations, both European and non-European, by the countries listed in footnote (b) below. Except as there indicated, trade of eastern European countries is not included because of the lack of data on a sufficiently regular and detailed basis. Figures for 1938 are shown both for Europe as a whole (including the U.S.S.R. and the Baltic States) and, to provide comparability, for the countries covered by the post-war figures.

Commodity group ^a	TOTAL EUROPE				1949				1950			
	1938		1938		1948		1949		1949		1950	
	Quarterly average	Quarterly average	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter
<i>Coal, coke and patent fuel</i>												
European imports	21,559	5,525	17,179	19,105	20,192	20,030	20,369	20,126	18,620	18,342	20,230	17,693
of which France ^b	3,041	2,939	4,273	4,241	4,493	5,177	5,582	5,091	4,212	3,771	3,461	2,462
Italy	1,575	1,832	2,124	2,120	2,433	1,837	1,916	2,063	2,508	3,165	2,471	1,858
Austria	1,531	1,531	1,620	1,620	1,843	1,435	1,565	1,433	1,600	1,646	1,600	1,310
Sweden	1,933	1,683	2,050	18,940	21,204	20,982	1,607	1,793	1,225	1,124	1,621	1,381
European exports ^c	25,833	15,708	18,940	21,204	20,982	21,258	22,202	21,780	24,208	23,073	20,722	
of which Poland ^b	7,979	7,590	8,140	7,971	8,461	8,461	8,461	8,593	7,591	7,581	7,800 ^d	7,000 ^e
Germany ^b	8,202	5,979	4,220	5,048	4,737	5,219	5,298	5,504	5,362	5,668	5,342	5,608
United Kingdom	9,699	2,319	4,483	4,737	4,737	4,737	4,737	4,733	4,733	5,364	6,248	5,209
<i>Mineral oil, crude and refined ^e</i>												
European imports	9,825	9,726	10,224	13,449	13,034	12,579	13,257	13,921	13,750	14,407	14,379	16,739
of which United Kingdom	3,179	3,869	5,223	5,432	4,479	5,132	4,479	4,716	4,517	4,330	4,677	5,337
France ^b	2,071	1,460	2,369	2,334	2,470	2,923	2,782	3,248	3,083	3,197	3,275	3,609
Netherlands	461	506	774	636	607	607	607	600	943	1,070	1,174	1,451
Italy	691	638	745	615	540	565	540	642	656	1,014	1,049	1,417
Germany ^b	1,347	304	443	367	467	467	467	467	592	592	383	723
European exports	2,130	1,764	930	983	1,178	1,312	1,610	1,884	2,082	2,250	2,446	3,134
of which France ^b	147	95	188	335	392	514	651	693	742	618	811	986
Netherlands	20	30	22	111	138	209	209	301	416	436	618	
<i>Steel, crude and finished</i>												
European imports	1,243	1,074	1,137	1,183	1,157	1,147	1,256	1,370	1,362	1,103	1,244	1,409
of which United Kingdom	208	69	81	102	162	174	174	209	273	138	135	146
Netherlands	199	226	290	260	245	268	268	244	241	203	297	281
European exports	1,999	1,884	1,248	1,584	1,649	1,967	2,077	2,194	2,120	2,360	2,541	2,776
of which Belgium-Luxembourg	550	669	785	811	977	990	990	993	864	717	808	783
France ^b	289	86	234	252	260	331	331	411	471	755	657	742
United Kingdom	325	352	372	387	439	453	453	462	453	520	572	623
Germany ^b	534	12	37	67	50	96	96	123	173	149	311	405
<i>Copper</i>												
European imports	339	326	186	209	252	202	203	239	225	190	215	248
of which United Kingdom	90	80	82	116	84	71	71	86	98	61	71	93
France ^b	28	20	20	32	32	31	31	40	40	36	41	24
Belgium-Luxembourg	57	36	46	42	34	34	36	33	33	42	39	53
European exports /	55	47	34	39	44	46	53	57	68	53	57	68
of which Belgium-Luxembourg	40	20	22	27	27	31	37	42	42	25	32	34
<i>Timber (thousand m³)</i>												
European imports	8,431	8,122	3,928	4,173	7,076	6,554	3,987	4,655	7,330	6,599	3,580	4,427
of which United Kingdom	3,373	1,638	1,400	2,891	2,585	1,428	1,599	1,320	968	1,278	1,287	
France ^b	361	698	1,168	1,410	1,255	840	961	968	659	329	205	
Netherlands	668	424	379	872	885	432	448	859	685	431	600	
European exports /	7,188	4,963	1,505	3,614	6,185	4,952	2,705	3,695	5,667	4,425	2,879	4,810
of which Finland ^b	1,704	185	238	2,310	1,440	345	345	2,772	2,314	1,635	403	2,054
Sweden	1,030	207	328	1,017	1,040	338	633	1,432	1,432	1,181	526	913
<i>Wood-pulp</i>												
European imports	752	737	393	613	651	659	609	689	729	734	730	874
of which United Kingdom	431	93	179	328	348	324	280	354	376	331	302	420
France ^b	67	29	60	63	99	65	93	103	82	112	119	
Italy	31	42	22	19	28	72	33	49	49	47	92	54
European exports /	1,296	1,257	531	868	799	642	604	829	818	1,141	874	1,113 ^g
of which Sweden ^b	403	39	70	41	41	41	41	43	43	43	43	
European imports	169	159	113	13	13	13	13	13	13	13	13	28
of which United Kingdom	248	121	183	158	201	210	205	212	215	215	215	244

July	European exports	1,296	1,257	67	56	63	22	19	99	65	93	103	107	31	31	302	
	of which Sweden ^b			531	511	588	314	719	799	72	72	103	107	82	82	119	
	Norway			223	223	223	223	223	223	223	223	223	223	223	223	223	162
	European imports	1,59	113	39	70	38	41	41	41	41	41	41	41	41	41	54	
	of which United Kingdom	248	121	121	183	158	158	158	158	158	158	158	158	158	158	111	
	European exports	249	90	46	46	84	84	84	84	84	84	84	84	84	84	87	
	of which Finland	41	38	38	38	50	50	50	50	50	50	50	50	50	50	57	
	Sweden ^b			38	27	33	33	33	33	33	33	33	33	33	33	37	
	Norway			38	38	38	38	38	38	38	38	38	38	38	38	36	
Raw wool	European imports	255	244	77	210	200	178	170	218	248	212	205	210	215	233	244	
	of which United Kingdom	60	81	81	69	48	51	51	74	93	51	55	55	55	51	51	
	France ^b			29	30	30	23	18	18	25	27	27	27	27	27	36	
	Belgium-Luxembourg																
Raw cotton	European imports	506	478	99	324	367	269	365	445	481	362	363	363	363	304	470	
	of which United Kingdom	73	45	120	60	67	59	52	128	164	85	54	54	54	123	141	
	France ^b			88	18	31	29	41	42	45	40	40	40	40	63	63	
	Germany ^b			34	26	19	12	21	27	24	22	22	22	22	37	32	
Wool yarn	European imports	9.8	8.4	2.0	7.2	7.3	5.8	6.5	6.3	6.5	7.5	10.2	10.5	11.3	12.4	10.9	
	of which Netherlands	1.8	8.6	8.6	9.4	9.4	9.8	11.5	10.2	10.5	10.5	10.5	10.5	10.5	13.3	3.3	
	European exports	10.2	9.8	1.8	2.2	2.2	2.6	3.0	3.5	3.5	3.5	3.6	3.6	3.6	15.0	14.7	
	of which United Kingdom	0.3	2.3	2.3	2.9	2.9	2.8	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.8	3.9	
	France ^b			1.9	1.8	1.8	2.0	2.1	2.0	2.1	2.1	2.1	2.1	2.1	5.2	5.0	
	Belgium-Luxembourg														3.9	3.1	
Cotton yarn	European imports	25.0	16.4	11.1	9.7	10.1	11.3	10.0	11.1	12.8	17.5	17.5	17.5	22.9	22.9	18.6	
	of which Germany ^b	3.4	3.4	0.1	0.1	0.1	0.1	0.2	0.5	1.8	5.0	5.0	5.0	5.0	4.6	2.4	
	European exports	34.4	34.0	16.8	11.5	21.2	25.8	25.9	29.4	29.4	26.2	26.2	27.4	27.4	27.0	25.5	
	of which United Kingdom	13.9	5.7	5.7	7.3	7.3	7.7	7.7	9.9	9.9	8.5	8.5	8.5	8.5	8.0	7.7	
	Italy			4.8	6.7	7.7	8.5	11.7	10.7	6.6	6.6	6.6	6.6	6.6	9.2	7.5	
	Belgium-Luxembourg			3.1	2.2	2.9	2.9	3.3	3.7	5.8	7.5	7.5	7.5	7.5	5.4	4.8	
Artificial yarn and fibres	European imports	10.9	9.3	3.7	5.6	7.8	8.3	8.7	11.2	11.3	9.5	10.1	10.1	12.6	12.6	12.3	
	of which Germany ^b	—	—	0.2	0.5	0.5	0.8	0.8	1.9	2.3	2.3	2.3	2.3	2.3	3.6	2.8	
	European exports	20.4	20.3	25.0	30.9	35.1	30.7	31.9	25.4	24.0	32.5	32.5	32.5	32.5	33.4	44.5	
	of which Italy	9.8	7.8	8.3	12.0	12.0	7.5	7.0	3.9	5.3	9.9	9.9	9.9	9.9	6.4	8.6	
	United Kingdom	3.1	4.4	5.2	6.0	5.1	5.1	4.6	4.6	4.6	3.6	3.6	3.6	3.6	4.7	5.2	
	Netherlands	1.6	4.0	4.0	4.0	3.5	4.2	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.7	5.2	
Cotton tissue	European imports	..	6.5	10.9	10.7	13.7	15.7	15.7	18.1	19.0	18.3	18.3	18.3	18.3	21.9	23.9	
	European exports ^g	..	74.1	34.8	41.2	47.4	57.8	62.3	60.3	59.6	57.7	61.6	61.6	61.6	56.2	56.2	
	of which United Kingdom	39.8	17.9	19.3	22.9	24.1	27.2	26.8	26.8	26.8	23.8	23.7	23.7	23.7	24.1	21.0	
	France ^b	6.8	7.6	7.6	7.6	7.6	10.3	14.6	14.6	14.6	12.4	12.4	12.4	12.4	13.3	13.4	
	Netherlands	5.3	2.3	3.4	3.5	3.5	3.7	4.3	4.3	4.3	4.0	4.0	4.0	4.0	3.8	3.5	
	Belgium-Luxembourg	4.7	4.6	4.6	3.9	3.9	3.9	3.9	3.9	3.9	6.3	6.3	6.3	6.3	9.1	6.6	
	Switzerland	1.1	0.4	0.4	0.3	0.3	0.6	0.6	0.6	0.8	0.9	1.6	1.6	1.6	1.5	1.1	
	Italy	10.5	1.7	2.9	4.1	4.1	5.3	5.3	5.3	5.1	5.1	8.4	8.4	8.4	7.1	8.3	
	Germany ^b	5.9	2.4	4.0	5.0	8.5	6.7	6.4	6.4	5.1	5.1	5.0	5.0	5.0	2.2	2.3	
Hides and skins	European imports	148	134	88	107	107	87	117	129	101	101	101	101	101	119	125	
	of which United Kingdom	24	26	35	38	28	35	35	43	35	35	35	35	35	42	41	
	France ^b	11	25	21	11	11	9	18	15	10	10	10	10	10	16	19	
	Germany ^b	1	1	5	5	5	5	9	9	19	19	19	19	19	17	15	
Rubber	European imports	112	109	136	134	47	62	109	136	128	133	136	136	136	156	143	
	of which United Kingdom	35	23	24	24	25	25	25	33	34	34	34	34	34	61	55	
	France ^b	17	15	20	21	21	21	20	28	28	28	28	28	28	27	27	
	Germany ^b	27	1	1	1	1	1	1	30	30	30	30	30	30	24	24	

^a For the composition of the commodity groups and information on conversion factors employed, see ECONOMIC SURVEY OF EUROPE IN 1949, Appendix B, page 260.

^b The countries whose trade is included throughout the table are: United Kingdom, Iceland, Ireland, Portugal, Spain, France, Belgium, Luxembourg, Switzerland, Italy, Greece, Turkey, Czechoslovakia, Austria, and Yugoslavia. In addition, the figures for coal and coke include the trade of all other European countries (including the U.S.S.R.); the figures for mineral oil include the trade of Poland, Hungary, Rumania and Yugoslavia; and the figures for timber, wood-pulp, raw cotton, skins and rubber include the trade of the Saar formed part of that of France.

^c Figures have been revised to include bunkers.

^d Estimated on the basis of data for January and February.

^e Crude equivalent.

^f Post-war figures have been revised to include data for the three western zones of Germany.

^g Totals cover only countries for which export figures are shown separately plus Sweden.

the most important items in each commodity group, which, however, usually make up from 80 to 90 per cent of its total trade. For Germany, the 1938 data refer to the whole of the pre-war territory; the post-war figures refer to the U.K., U.S. Zone only up to the end of 1949 and thereafter for the three western zones. The Saar formed part of the German trade area in 1938, but beginning with the first quarter of 1948, its trade is included with that of France.

^c Figures have been revised to include bunkers.

^d Estimated on the basis of data for January and February.

^e Crude equivalent.

^f Post-war figures have been revised to include data for the three western zones of Germany.

^g Totals cover only countries for which export figures are shown separately plus Sweden.

NOTES TO THE STATISTICS

1. GENERAL

The statistical series contained in the section "European Economic Statistics" are generally a continuation of those published in the *Economic Survey of Europe in 1949*, and in Volume 2, Number 1, of the *Economic Bulletin for Europe*. The sources and methods used in their compilation were described in detail in the SURVEY, and notes on certain amendments were included in the issue of the *Bulletin* mentioned above. The present notes give only a brief general description of the coverage and nature of the statistical series, and details of sources and methods are given only for series which appear for the first time in this issue of the *Bulletin* or where revised or additional data have been introduced.

The tables include information received up to 1 October. In general, the most recent figures are to be regarded as provisional and subject to later revision. In some cases the figures differ from those given in the preceding issues of this *Bulletin*, as they have since been revised and brought up to date.

Slight discrepancies between constituent items and the totals as shown in the tables are due to rounding.

2. INDEX NUMBERS OF INDUSTRIAL PRODUCTION (Tables I to V)

The index numbers for most countries are based on pre-war weights, and therefore do not take into account changes in the price structure compared with pre-war. In cases where, as for the United Kingdom, two pre-war links are available, one based on pre-war weights, one on post-war weights, the index based on pre-war weights has been chosen for reasons of comparability with other countries. It is likely that, if post-war weights could be used for all countries, the index numbers would be considerably lower. In the case of the United Kingdom, the general index of industrial production for 1949 would be 129 (1938 = 100).

Although the methods used in computing production indices differ from country to country, the most common method is that of weighting indices of physical output (gross output) for individual industries according to their net production value. The main exception is the index for the Soviet Union, which is essentially an index of gross production.

Although, in principle, index numbers adjusted for the different number of working days in each month have been used, lack of such data for some countries necessitated the inclusion for these countries of unadjusted indices. The effect of this on the European average is estimated at less than one point.

The index numbers for Poland relate post-war production in post-war territory to pre-war production in pre-war territory. The European totals, however, refer to constant (post-war) territories for both pre-war and post-war years.

The coverage of the index numbers is as follows :

General Index

The indices generally include manufacturing, mining and gas, water and electricity supply, but exclude building. The food industries, however, are not included in the index numbers for Germany and Italy, nor in the quarterly indices for France ; the engineering industry is not included in the Italian index.

Engineering Industry

The indices include, as far as possible, mechanical and electrical engineering, transport equipment (including ships and aircraft) and metal goods.

Chemicals

The index numbers shown are those described as covering "chemicals" in the sources, although the definition of the industries varies between countries. Insofar as possible, the production of vegetable oils and soap has been included in cases where the official index does not cover these activities.

Textiles

The index numbers shown are those described as covering "textiles" in the sources. Clothing is not included, except in cases where this industry could not be separated from the index.

Building Materials

The indices generally include production of bricks, tiles, cement, glass, ceramics and other non-metallic mineral products.

REVISIONS AND ADDITIONS

Finland : The level of the index numbers (Tables I to V) previously published has been adjusted to the level of the new annual indices published in *Tilastokatsauksia*, Central Bureau of Statistics, Helsinki, July-August 1950.

France : The annual index numbers for total industrial production (Table I) include food processing, ready-made clothing and the wood industry, on the basis of data shown in the *Bulletin Mensuel de Statistique, Supplément*, Institut national de la Statistique et des Etudes économiques, Paris, April-June 1950.

Italy : The Italian Institute of Statistics has published a new index of industrial production which covers food processing and engineering, in addition to the activities already included in the former index. This index, however, became available too late for inclusion in the present issue of this *Bulletin*. Therefore, the old series are still shown with the exception of those for engineering (Table II) which have been substituted by provisional indices calculated by the Economic Commission for Europe on the basis of a number of individual production series.

Spain : The general index (Table I) previously published has been replaced by a new one calculated by the Economic Commission for Europe. The new index is based on production data in physical terms as published in *Boletin de Estadística*, Instituto Nacional de Estadística, Madrid. The activities covered are mining, metallurgy, engineering, chemicals, building materials, textiles, paper, leather, gas and electricity, and, for the annual index, food processing. The weights used to combine these series are based on employment in 1940, which has also been taken as the base year for the index.

3. EMPLOYMENT (Table VI)

The indices include both wage and salary earners and manufacturing (excluding building), mining, gas, water and electricity supply. Figures for Belgium, Denmark and Poland include wage earners only ; those for Czechoslovakia and the United Kingdom include employers and managers as well.

The index numbers for Poland relate post-war employment in the post-war territory to pre-war employment in the pre-war territory. The European totals, however, refer to constant (post-war) territories for both pre-war and post-war years.

4. PRODUCTION OF MAJOR COMMODITIES (Tables VII to XII)

The coverage of the figures is as follows :

Coal

The figures relate to the net pit-head production of coal (clean coal raised to the surface). Lignite is not included.

Electric Power

The figures relate to the total production of electric power unless otherwise stated in the footnotes to the table.

Crude Steel

The figures relate to the total production of steel ingots and direct castings including special alloy steels, whether for use by the maker or for sale. Wrought (puddled) iron is excluded.

Cement

The figures relate to the production of artificial cements (including Portland cement) and natural cement unless otherwise indicated.

Motor Vehicles

The figures relate to total production of motor vehicles, both for export and the domestic market, and include production of foreign-owned companies operating within the territory of the reporting country. The production of completed vehicles built on imported chassis is excluded. Taxis are included in the figures for passenger cars, but vehicles intended for common carriers (buses, coaches) are excluded. "Commercial vehicles" includes all lorries, motor coaches, etc., and special vehicles such as ambulances and fire engines.

Livestock Produce

The coverage of the figures is given in the footnotes to the table.

REVISIONS AND ADDITIONS

Livestock Produce

In general, the sources used have been changed from the *Monthly Bulletin of Statistics*, United Nations, on which the figures in the previous issue of this *Bulletin* were based, to national publications which normally give more detailed data. In addition to minor revisions arising for this reason, a number of countries have recently revised their production estimates.

5. PRICES (Table XIII)

Wholesale prices

Although, in principle, the indices shown include raw materials, semi-finished products and finished products, both home produced and of foreign origin, in many instances finished manufactures are not adequately represented. Some indices, moreover, probably do not fully reflect the influence of price movements of imported materials. The index numbers should therefore be used with caution.

Cost of living

The index numbers for most of the countries shown reflect the movements of the expenditure on a fixed sample of consumer goods. This sample generally represents the amount of goods (and services) consumed by a working-class family at a given date. The indices therefore are not necessarily representative of the movements of the cost of living of the population as a whole, neither are they fitted for inter-country comparisons. In some cases it is likely that services are not adequately represented.

6. RETAIL SALES (Table XIV)

The indices shown generally refer to a sample of all retail trade. Unless otherwise indicated, they include department stores, co-operatives and individual traders.

SOURCES

Austria : *Monatsberichte des Österreichischen Institutes für Wirtschaftsforschung*, Vienna.

Denmark : *Statistiske Efterretninger*, Copenhagen.

Finland : *Unitas*, A.B. Nordiska Föreningssbanken, Helsinki.

Germany, western zones : *Wirtschaft und Statistik*, Statistisches Amt des Vereinigten Wirtschaftsgebietes, Stuttgart.

Netherlands : *Maandschrift*, Centraal Bureau voor de Statistiek, Utrecht. The index has been derived from the monthly data on consumption expenditure. Services and gas, electricity and water have been excluded.

Norway : *Statistiske Meldinger*, Central Bureau of Statistics, Oslo.

Sweden : *Sociala Meddelanden*, Stockholm.

Switzerland : *La vie économique*, Département fédéral de l'économie publique, Berne.

United Kingdom : *Board of Trade Journal*, London.

7. BALANCE OF PAYMENTS (Tables 2, page 3, and XV)

The tables follow as closely as possible the "compensatory official financing" concept used by the International Monetary Fund. An explanation of this concept is given in *Balance of Payments Yearbook, 1948*, International Monetary Fund, pages 22-25. Full comparability, however, cannot be achieved, as the original sources do not permit an exact separation of transactions classifiable as compensatory official financing.

All signs in the tables are reversed as compared with the original source in order to present the data from the standpoint of Europe and other areas specified rather than from that of the United States. A plus sign indicates a credit transaction (receipt by Europe and other areas) and a minus sign a debit transaction (payment by Europe and other areas). Thus, for instance, a plus sign indicates a withdrawal of funds from foreign dollar balances in the United States or the sale of gold to the United States, and a minus sign indicates the acquisition of such assets.

A minus figure in the last three rows of Table XV represents an excess of (a) estimated dollar funds obtained from the United States (including receipts through drawings on dollar balances and sale of gold) over (b) the estimated amounts required for payments of all types to the United States. The difference indicates the net effect of (a) errors and omissions, and (b) dollar transfers to other areas. The final figures in the last three rows, under "total world", indicate the net effect of all errors and omissions in the global balance of payments estimates of the United States. If there were no such errors and omissions, all other entries in the rows would cancel out.

SOURCES

Survey of Current Business, United States Department of Commerce, June 1950. The data for the second quarter of 1950 were communicated directly by the International Economics Division, United States Department of Commerce.

8. THE NETWORK OF EUROPE'S TRADE BY INDIVIDUAL COUNTRIES, 1938, 1948 AND 1949 (TABLE XXI)

General

Table XXI is essentially a new edition of Table XVI of the *Economic Survey of Europe in 1948*, revised and brought up-to-date to include figures for 1949. It was not possible to include such a revised table in the *Economic Survey of Europe in 1949* owing to the lack of complete data at that time.

It should be noted that the table is the result of detailed comparisons of the data for individual flows of trade published by the importing and exporting countries concerned, which may differ for a number of reasons. Some of the discrepancies arise from differences in coverage, from differences in the definition of the countries of origin and destination, and so on. In such

cases, adjustments were made to bring the figures into conformity with the general definitions adopted. Other discrepancies, such as those arising from time lags, are, however, of a more systematic nature and would remain even if uniform recording practices were followed by all countries. (A full statement of the most important causes of discrepancies of this kind may be found in *International Trade in Certain Raw Materials and Foodstuffs by Countries of Origin and Consumption*, League of Nations, Geneva, 1939, p. 17.) Where such discrepancies exist, the figure adopted takes into account such factors as time lags and the general reliability of the statistics relating to each country. The data for 1949 frequently show abnormally high differences between the figures reported by any two countries owing to devaluation and the figures shown are as a result less reliable than those for other years. Although they are thus partly estimates, the figures in the table, providing as they do a consistent set of approximations, may be taken as fairly reliable indications of the magnitudes involved.

The standard definition adopted is that the figures show trade according to country of origin and of consumption, excluding transit trade, in f.o.b. values ; ships' stores and provisions and bunkers are excluded ; reparations and sales of surplus war supplies are excluded ; but every other sort of commercial trade, including U.N.R.R.A. shipments, military purchases for ordinary civilian supplies, parcel post, etc., are included in so far as figures are available. In taking account of time lags, figures showing the value of goods despatched rather than those received in any period have been used.

Sources and Methods used

The 1938 figures for intra-European trade have been reproduced from Table XVI, *Economic Survey of Europe in 1948*, as derived from *Network of World Trade*, League of Nations, Geneva, 1942. The 1938 figures for overseas trade were re-calculated from the same source according to the new classification of overseas countries adopted, with certain additional adjustments made where the *Network of World Trade* did not provide detailed break-downs. In addition, the figure for intra-overseas trade in 1938 has been modified in order to take account of the over-valuation of petroleum in Venezuelan exports.

The figures for both 1948 and 1949 are new calculations, the figures for 1948 having been entirely revised, since those published in *Economic Survey of Europe in 1948* were partly estimated owing to lack of complete data at the time of their publication. The figures for 1949 do not generally contain provisional estimates since, for those countries which publish trade statistics, data for the whole year 1949 are now available.

In order to obtain figures representing trade according to country of origin and consumption, omitting transit trade, account has been taken, in considering the flow of trade between any two countries, of the data reported by both the exporting and the importing country. Where figures are reported in c.i.f. values, the conversion to f.o.b. values has normally been made by applying an adjustment of 12.5 per cent of the c.i.f. value for overseas trade and of 5 per cent of the c.i.f. value for intra-European trade between countries with no common frontier. In some cases, account has also been taken of the composition of trade.

For countries which report their imports by country of purchase or of consignment, for example, Denmark and Czechoslovakia, their imports from overseas areas other than the United States and Canada have been increased by estimates of that part of their overseas imports which reach them as transit goods, or re-exports from other European countries. These estimates have been based on the differences between the exports to Denmark, Czechoslovakia, etc., from European countries which have considerable transit trade, and the corresponding imports reported by Denmark, Czechoslovakia, etc.

The conversion of the figures into United States dollars was made at the exchange rates given in *Summary of World Trade Statistics*, United Nations. Germany's exports in 1948 and both Germany's imports and exports in 1949, and also Italy's trade (imports and exports) both in 1948 and 1949, were taken directly from the official trade publications of these countries where they are given in dollar values.

The sources used for the figures for 1948 and 1949 were chiefly the trade statistics of European countries, the United States and Canada. While it is impossible to list the sources and methods used in the computation of all the figures, the most important general procedures followed and estimates made in arriving at the figures for individual countries for 1948 and 1949 are noted below (in the order in which the countries appear in the table) :

United Kingdom

The import figures for the United Kingdom which refer to "general trade" have been reduced to a "special trade" basis by deducting total re-exports from general imports from overseas areas. Adjustments were made to include exports of diamonds from the United Kingdom to Belgium and the Netherlands, as given in the returns of these countries. The trade of the United Kingdom with the Channel Islands and imports of British Whale Fisheries were considered as internal trade and excluded. Imports of Deep Sea Fisheries were also excluded.

France

The figures for France in 1948 have been taken mainly from the reports of its trade partners because of the problem of French exchange rates in that year.

The trade of the Saar is included in the published trade statistics for France as from the second quarter of 1948. For the first quarter an estimate of the trade of the Saar with Germany was added to the figures for France. Owing to the change in the recording of the Saar's trade, post-war figures for both France and Germany are not comparable with those for 1938.

Portugal and Finland

In the monthly statistics of these countries, a substantial part of their trade is not specified by countries. The annual statistics which provide a full breakdown are not yet available for 1949. The geographical distribution for that part of trade which is not specified in the monthly figures has therefore been estimated on the basis of the figures for 1948.

Denmark

Certain imports recorded in the Danish trade statistics as originating in the United Kingdom and the Soviet Union and certain exports recorded as destined for the United States refer, in fact, to imports from the British and Soviet Zones of Occupation in Germany and to exports to the United States Zone of Occupation. These imports and exports have been considered as trade between Denmark and Germany. The trade of Denmark with the Faroe Islands has been considered as internal trade and excluded.

Norway

The total export figures have been raised in order to include exports of whale oil, for which figures have been taken from *Nasjonalbudsjettet*. The trade of Norway with Spitsbergen has been considered as internal trade and excluded.

Germany

Special estimates had to be made for the trade of the Soviet Zone. Its trade with western European countries was taken from the trade returns of these countries. Its trade with eastern European countries was estimated as follows: for 1948, total imports amounted to R.M. 360 million, and total exports to R.M. 325 million, according to an estimate made by the Institut für Wirtschaftsforschung. The percentage distribution by countries, as published in *Statistische Praxis*, 3 March 1949, has been applied to these total trade figures. The figures were converted into United States dollars on the basis of \$0.30 for imports and \$0.35 for exports, except for imports from the Soviet Union and Poland, where the rate of \$0.40 was used, owing to the fact that imports from these two countries consist chiefly of coal and cereals for which prices in Germany were considerably lower than world prices.

In estimating the figures for 1949, the figures for 1948 were approximately doubled on the basis of various statements in the Press relating to the expansion of the trade of the Soviet Zone.

Austria

The figures have been taken from the monthly publication *Statistische Nachrichten*, in which the figures given for 1948 differ from those published in the annual *Statistik des Ausserhandels Österreichs* chiefly owing to the exclusion from the latter source of coal imported under the programme of aid to Austria. An important part of the trade with the Soviet Union is not included in either of these statistical sources.

Eastern European countries

For 1948, official figures are available only for Czechoslovakia, Poland and Hungary. The figures for Bulgaria have been estimated on the basis of data available for the period January-May 1948. For trade between countries, where no official figures were available, use has been made of data contained in a speech by Marshal Tito published in *Borba*, 28 April 1950, and, for trade between Rumania and the Soviet Union, figures were derived from *Informations Roumaines*, 31 January 1949.

For 1949, most of the trade figures between eastern European countries were derived from published trade agreements, either in the form of actual figures or in the form of percentage changes as compared with 1948. The following statements in the Press were used as a basis for these estimates:

1. *Neue Zürcher Zeitung*, 20 June 1949, stated that trade negotiations between Poland and Czechoslovakia provided for Czechoslovak exports and imports totalling 2.5 billion Kčs in the second half of 1949.
2. *Borba*, 28 April 1950, reported a speech by Marshal Tito on which all figures relating to Yugoslavia in 1949 have been based.
3. *Economie soviétique et Economies planifiées*, August-September 1949, stated that, according to a trade agreement between the two countries signed 14 December 1948, the Soviet Union would account for 25 per cent of Czechoslovakia's total trade turnover and that the Soviet Union's trade with Czechoslovakia would amount to \$173 million in exports and \$179 million in imports. These two figures exclude a reciprocal textile agreement covering \$90 million. It has been assumed that this separate agreement was fulfilled to the value of \$46 million in 1949 (i.e. \$23 million each way) since the resulting total for Czechoslovakia's trade with the Soviet Union ($179 + 173 + 46 = \$398$ million) will then equal 25 per cent of Czechoslovakia's total trade turnover in 1949 as reported in *Monthly Bulletin of Statistics*, United Nations. The same source also stated that an agreement between Poland and the Soviet Union signed 15 January 1949 provides for total exchanges of \$270 million each way under which deliveries would, according to the *New York Herald Tribune*, 10 January 1949, be equal on each side. This excludes industrial equipment to be supplied by the Soviet Union to Poland under the \$450 million credit provided in the 1948 Five-year Pact. It was assumed that Poland received one-fifth of this credit in 1949 and \$90 million was therefore added to the figure for Poland's imports from the Soviet Union of \$135 million, giving a total of \$225 million.

4. *Monthly Bulletin of the National Bank of Hungary*, Nos. 5-6, 9, 11-12, 1948, gives information on Hungary's trade agreements with other eastern European countries. On the basis of this information, it was assumed that trade between Rumania and Hungary in 1949 amounted to \$10 million in each direction, equal to the value of trade which was planned under the trade agreement for the period 18 June 1948 to 18 June 1949. For trade between Hungary and Bulgaria, an agreement provided for an exchange of goods to the value of \$17 million. For trade between Hungary and the Soviet Union, an estimate for the year 1949 was made on the basis of the agreement providing for an exchange of goods to the value of \$150 million in a period of 17 months. For trade between Hungary and Czechoslovakia, an agreement provided for an exchange of goods to the value of \$28 million on each side from 1 November 1948 to 31 December 1949.

5. *Notiziario Commerciale*, 1 March 1949, stated that, according to a trade agreement, total exchanges between Rumania and Czechoslovakia in 1949 would reach \$70 million.

6. *Czechoslovak Economic Bulletin*, 28 April 1949, stated that a trade agreement between Czechoslovakia and Bulgaria of 7 April 1949 "fixes the scope of deliveries on either side at some 30 per cent in excess of mutual trade in 1948".

7. *Szabat Nép*, Budapest, 13 May 1950, stated that Hungary and Poland concluded a trade agreement providing for an increase in the exchange of goods in 1949 to three times the value of trade in 1948.

8. *Free Bulgaria*, 1 April 1949, stated that two trade agreements between Poland and Bulgaria provide for total transactions of \$32 million for 15 months, equivalent to approximately \$12 million each way for the year 1949.

9. *Financial Times*, 18 December 1948, reported an agreement between Poland and Rumania covering deliveries worth \$13 million each way.

10. *Informations Roumaines*, 31 January 1949, stated that total exchanges between the Soviet Union and Rumania in 1949 would be two-and-a-half times as great as in 1948, according to a new agreement.

11. *New York Herald Tribune*, 20 January 1949, stated that the Soviet Union's trade with Bulgaria in 1949 would increase by 20 per cent.

United States and dependencies

Although United States export statistics—i.e., the figures as at time of despatch—have generally been used rather than other countries' import statistics, for Czechoslovakia, Finland and Switzerland, the larger figures given by their statistics for imports from the United States were used, the difference in their f.o.b. values being attributed to transit trade. Corresponding adjustments for their transit shipments were made in the trade of France, the Netherlands and the United Kingdom.

Canada and Newfoundland

For Canada's exports, the Canadian figures, rather than the importing figures of other countries, have generally been taken. These figures, however, have been adjusted on the basis of the estimates given in *International Financial Statistics*, International Monetary Fund, August 1950, in order to take account of the fact that Canada reports its trade f.o.b. place of consignment. For 1948 and 1949 the trade of Newfoundland is included with that of Canada.

Overseas countries other than the United States and Canada

The figures for Europe's trade with these countries have generally been taken from European trade statistics. For the overseas trade of European countries for which trade statistics are not available, use was made of the data published in *Direction of International Trade*, January-March 1950, joint publication of Statistical Office of the United Nations, International Monetary Fund and the International Bank for Reconstruction and Development, and also other data provided by the Statistical Office of the United Nations.

Total World

For 1948 and 1949, exports from overseas areas other than Canada and the United States to the world were obtained by subtracting from total world exports as given in *Summary of World Trade Statistics*, Statistical Office of the United Nations, First quarter 1950, the exports of Europe, the United States and Canada to the world as given in the same publication. World exports were obtained by adding to this figure for exports from overseas areas those calculated directly for the exports of Europe, the United States and Canada to the world which, owing to the difference in methods of estimation, differ slightly from those given in *Summary of World Trade Statistics*.

Table XXI

Network of Europe's Trade by Individual Countries, 1938, 1948 and

Millions of dollars in current f.o.b. price

		I. United Kingdom, Iceland and Ireland			II. Western European Industrial Countries						III. Mediterranean and Iberian Countries						IV. Scandinavia																																													
Exporting Countries	Year	Importing Countries →			United Kingdom			Iceland			Ireland			Total Group I			Netherlands			Belgium-Luxembourg			Switzerland			Total Group II			Italy			Greece			Spain			Portugal			Turkey			Other Mediterranean and Iberian countries			Total Group III			Denmark			Sweden			Norway			Total			
					United Kingdom			Iceland			Ireland			France			Netherlands			Belgium-Luxembourg			Switzerland			Italy			Greece			Spain			Portugal			Turkey			Other Mediterranean and Iberian countries			Denmark			Sweden			Norway												
I. United Kingdom, Iceland and Ireland	United Kingdom	1938	3	99	102	74	63	55	17	209	28	18	17	16	12	12	103	76	57	38	27	198	1938	18	305	323	137	191	183	80	591	51	54	42	96	65	43	39	351	129	212	127	89	557																		
	United Kingdom	1948	18	305	323	137	191	183	80	591	51	54	42	96	65	43	39	300	183	173	160	69	585	1948	14	282	296	123	195	150	61	529	65	52	36	70	38	39	30	300	130	212	173	160	69																	
	Iceland	1938	3	—	—	3	—	1	—	—	2	—	2	—	—	—	—	4	1	2	3	—	6	1938	18	—	18	3	3	—	—	—	2	2	—	—	—	—	—	4	2	—	3	—	7																	
	Iceland	1948	18	—	—	18	—	3	—	—	6	2	2	—	—	—	—	4	1	2	—	—	7	1948	15	—	15	1	1	—	—	—	1	—	—	—	—	—	—	4	1	—	—	—	1																	
	Ireland	1938	110	—	—	110	—	1	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	1938	163	—	163	1	7	6	5	—	1	—	—	—	—	—	—	—	2	—	1	—	—	1																
	Ireland	1948	163	—	—	163	—	1	—	—	16	—	—	—	—	—	—	—	—	—	—	—	—	1949	196	—	196	1	6	5	—	12	—	—	—	—	—	—	—	—	2	—	1	—	—	1																
	Total Group I	1938	113	3	99	215	74	65	55	18	212	30	18	19	16	12	12	107	77	59	41	27	204	1938	181	18	305	504	141	201	189	82	613	54	56	43	96	65	43	357	131	215	127	92	565																	
	Total Group I	1948	181	18	305	504	141	201	189	82	613	54	56	43	96	65	43	304	184	174	160	70	588	1949	211	14	282	507	125	202	155	61	543	67	53	36	71	38	39	304	184	174	160	70	588																	
II. Western European Industrial Countries	France	1938	102	—	2	104	34	112	51	197	14	2	11	6	2	2	37	4	14	7	4	29	1938	165	1	4	170	85	170	91	346	20	7	3	13	12	—	3	136	4	14	30	56	37	35	158																
	France	1948	165	1	4	170	85	170	91	346	20	7	3	13	12	—	3	55	4	14	30	56	37	35	1949	242	1	5	248	126	164	89	379	54	21	25	19	14	3	—	136	4	14	30	56	37	35	158														
	Netherlands	1938	129	—	2	131	33	58	12	103	7	2	4	3	1	1	18	4	20	9	5	38	1938	152	3	8	163	82	163	33	278	21	4	8	6	6	2	47	4	20	9	5	38	126																		
	Netherlands	1948	152	3	8	163	82	163	33	278	25	9	13	9	7	7	66	16	52	16	52	128	1949	219	2	10	231	93	165	30	288	25	9	13	9	7	3	66	16	52	16	52	26	34	128																	
	Belgium - Luxembourg	1938	88	—	5	93	110	88	16	214	9	2	8	6	2	1	28	6	20	9	7	42	1938	152	2	11	165	156	265	95	516	28	7	10	33	4	1	83	6	20	9	7	42	180																		
	Belgium - Luxembourg	1948	152	2	11	165	156	265	95	516	28	7	10	33	4	1	83	46	90	23	21	180	1949	166	2	8	176	131	257	50	438	55	18	11	19	5	—	108	42	70	53	17	182																			
	Switzerland	1938	34	—	—	34	28	14	10	52	21	1	1	2	1	—	26	4	9	3	3	19	1938	32	—	1	33	76	47	81	204	53	2	14	12	8	—	89	17	21	7	4	49																			
	Switzerland	1948	32	—	1	33	76	47	81	204	60	2	14	12	8	—	89	13	21	7	4	49	1949	36	—	1	37	56	38	74	168	60	2	13	11	6	1	93	13	16	7	5	41																			
	Total Group II	1938	353	—	9	362	171	136	180	79	566	51	7	24	17	6	4	109	18	63	28	19	128	1938	501	6	24	531	314	397	414	219	1344	122	20	35	64	30	3	274	101	101	94	239	85	66	509															
	Total Group II	1948	501	6	24	531	314	397	414	219	1344	122	20	35	64	30	3	274	101	101	94	239	85	66	1949	663	5	24	692	280	421	403	169	1273	194	50	62	58	32	7	403	101	101	94	239	85	66	509														
III. Mediterranean and Iberian Countries	Italy	1938	31	1	—	32	17	7	7	57	5	6	2	5	8	26	3	7	5	2	17	1938	113	2	2	117	54	19	31	69	173	12	7	5	20	7	51	21	43	27	3	94																				
	Italy	1948	113	2	2	117	54	19	31	69	173	12	7	5	20	7	51	21	43	27	3	94	1949	130	2	2	134	65	25	58	173	16	8	4	11	5	44	19	32	16	6	73																				
	Greece	1938	8	—	—	8	3	2	1	1	7	5	—	—	—	—	—	1	1	1	—	2	1938	22	—	1	23	5	2	2	11	11	8	—	—	1	1	13	9	—	3	1	3	7																		
	Greece	1948	22	—	1	23	5	2	2	11	8	—	—	—	—	—	—	1	1	1	—	2	1948	21	—	1	22	11	2	1	3	17	8	—	—	1	1	3	9	—	3	1	3	7																		
	Spain	1938	20	—	1	21	5	2	3	1	11	7	—	—	—	—	—	1	1	1	—	8	1938	54	—	3	57	18	12	14	16	60	9	—	—	3	4	1	13	4	14	6	1	25																		
	Spain	1948	54	—	3	57	18	12	14	16	60	9	—	—	—	—	—	1	1	1	—	8	1948	60	—	2	62	41	14	11	13	79	8	—	—	4	1	1	14	4	9	13	7	30																		
	Portugal	1938	16	—	—	16	6	1	2	1	10	3	—	—	—	—	—	1	1	1	—	4	1938	30	—	1	31	7	5	13	3	28	4	—	—	3	4	1	1	1	1	4	3	7																		
	Portugal	1948	30	—	1	31	7	5	13	3	28	4	—	—	—	—	—	1	1	1	—	4	1948	28	—	1	29	10	3	10	3	26	4	—	—	3	5	3	5	1	1	4	9	3	7																	
	Turkey	1938	4	—	—	4	4	2	2	1	9	12	2	1	—	—	—	1	1	1	—	4	1938	29	—	1	30	11	3	3	6	23	13	11	1	—	1	1	1	1	4	11	8																			
	Turkey	1948	29	—	1	30	11	3	3	6	23	13	11	1	—	—	—	1	1	1	—	4	1948	30	—	1	30	5	19	1	—	—	1	1	1	1	1	1	4	11	8																					
Other Mediterranean and Iberian countries	Other Mediterranean and Iberian countries	1938	1	—	—	1	—	1	—	—	1	3	1	—	—	—	—	4	—	—	—	—	1938	2	—	2	2	—	—	—	—	—	—	—	—	—	—	—	4	—	—	—	—	4																		
	Other Mediterranean and Iberian countries	1948	2	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1948	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	4	—	—	—	—	4																		
	Other Mediterranean and Iberian countries	1949	1	—	—	1	—	5	—	—	—	—	—	—	—	—	—	—	—	—	—	1949	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	1																			
Total Group III	Total Group III	1938	80	1	1	1	82	35	15	15	30	95	30	8	8	6	10	3	19	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	65	6	9	8	4	27																						
	Total Group III	1948	250	2	8	260	95	41	63	96	295	37																																																		

XXI — Tableau XXI

and 1949 — Réseau du commerce de l'Europe par pays en 1938, 1948 et 1949

prices — En millions de dollars, aux prix courants f. o. b.

Scandinavian countries		V. Germany and Austria		VI. Eastern European Countries								VII.		VIII.		IX.		X.		XI.		XII.		XIII.		XIV.		XV.		XVI.		Importing Countries		Exporting Countries	
Total Group IV	Germany	Austria	Total Group V	Czechoslovakia	Poland	Rumania	Hungary	Yugoslavia	Bulgaria	Total Group VI	U. S. S. R.	Total Europe (including U. S. S. R.)	United States and dependencies	Canada and Newfoundland	Latin American republics	Overseas sterling area (including British colonies)	Dependant territories overseas (excluding British colonies)	Other overseas countries	Total overseas countries	TOTAL WORLD	Year	Importing Countries		Exporting Countries											
198 557 585	101 101 97	6 14 23	107 115 120	11 22 19	26 29 32	6 4 6	3 9 15	6 11 13	1 1 2	53 76 87	55 21 32	827 2034 1949	101 267 206	111 290 295	177 485 494	873 2742 3060	58 137 152	144 399 405	1464 4320 4612	2291 6354 6561	1938 1948 1949	Royaume-Uni		Islande											
6 7 2	2 12 10	— — —	2 12 10	— 5 2	— 1 1	— — —	— — —	— — —	— — 3	16 54 36	1 4 2	— — —	— — —	— — —	— — —	— — —	— — —	— — —	1 6 2	17 60 38	1938 1948 1949	Islande		Irlande											
— 1 1	5 — —	— 5 1	— — —	— — —	— — —	— — —	— — —	— — —	— — —	117 182 210	1 1 2	— — —	— — —	— — —	— — —	— — —	— — —	— — —	— — —	1 4 3	118 186 213	1938 1948 1949	Irlande		Total groupe I										
204 565 588	108 113 108	16 14 23	114 127 131	11 27 21	26 30 33	6 4 6	3 9 15	6 11 13	1 1 2	53 82 90	55 22 32	960 2270 2195	103 272 210	111 292 295	177 485 494	873 2743 3061	58 137 152	144 401 405	1466 4330 4617	2426 6600 6812	1938 1948 1949	I. Royaume-Uni, Islande et Irlande		II. Pays industriels de l'Europe occidentale											
29 127 158	53 131 135	5 7 17	58 138 152	12 17 23	9 10 35	10 — 1	3 5 6	1 5 7	2 1 —	37 36 72	8 — —	470 872 1145	54 63 54	5 9 12	46 82 174	23 49 67	239 906 1150	26 63 102	393 1172 1559	863 2044 2704	1938 1948 1949	France		Pays-Bas											
38 126 128	84 60 130	3 11 16	87 71 146	7 30 29	7 6 19	1 1 5	1 5 11	1 10 —	— 52 65	17 4 7	411 741 931	31 32 50	4 5 4	22 32 36	29 75 80	69 102 167	13 29 31	168 275 368	579 1016 1299	1938 1948 1949	Belgique - Luxembourg		Suisse												
42 180 182	90 82 190	2 6 17	92 88 207	6 22 29	10 12 12	4 1 2	1 3 11	1 15 13	1 1 2	23 54 69	18 20 29	510 1106 1209	42 101 92	6 15 20	54 154 139	45 122 108	35 112 111	29 60 63	211 564 533	721 1670 1742	1938 1948 1949	Total groupe II		III. Europe méditerranéenne et péninsule ibérique											
19 49 41	47 16 73	7 17 15	54 33 88	10 30 21	5 8 12	3 4 4	3 8 12	3 9 10	3 1 2	25 60 61	6 8 5	216 476 493	21 106 100	3 8 11	20 108 97	16 48 45	5 18 18	20 32 39	85 320 310	301 796 803	1938 1948 1949	Italie		Grèce											
128 482 509	274 289 528	17 41 65	291 330 593	35 99 102	31 36 78	18 6 8	6 19 34	8 39 41	4 3 4	102 202 267	49 32 41	1607 3195 3778	148 302 296	18 37 47	142 376 446	113 294 300	348 1138 1446	88 184 235	857 2331 2770	2464 5526 6548	1938 1948 1949	Espagne		Portugal											
17 94 73	91 30 89	16 17 28	107 47 117	7 16 15	6 18 14	7 4 1	9 3 6	12 25 25	4 2 2	45 68 63	2 3 17	286 553 621	41 90 71	3 5 5	43 221 189	21 124 148	36 20 20	119 103 85	263 563 518	549 1116 1139	1938 1948 1949	Turquie		Autres pays du groupe											
2 7 7	35 3 10	1 2 7	36 5 17	3 7 —	1 — —	2 — —	1 — —	2 — —	— 7 —	9 — 72	— — 20	69 66 72	15 17 20	— — —	2 1 2	— 1 2	— 2 2	4 7 4	21 27 30	90 93 102	1938 1948 1949	Total groupe III		Danemark											
1 25 30	33 1 10	— 1 1	33 4 11	— 1 —	— — —	— — —	— — —	— — —	— — —	4 159 196	78 35 22	9 2 1	1 2 32	4 8 8	7 98 97	1 26 24	23 202 184	101 361 380	1938 1948 1949	Total groupe III		Danemark													
3 7 9	7 3 4	1 — —	8 3 4	— 1 —	— — —	— — —	— — —	— — —	— — —	1 1 1	42 78 74	5 18 16	1 1 2	3 17 9	— 5 5	7 98 97	1 26 24	17 172 154	59 172 154	1938 1948 1949	Total groupe III		Danemark												
4 11 8	44 10 39	4 3 8	48 13 47	4 13 19	2 1 4	2 1 3	1 2 —	1 1 —	10 18 27	4 121 —	95 42 35	95 121 168	19 42 9	1 2 2	2 2 2	1 2 6	— 27 28	27 196 81	122 196 249	1938 1948 1949	Total groupe III		Danemark												
— 4	— 8	— 1	— 9	— 2	— —	— —	— —	— —	— —	— —	— —	6 15 14	— 2 2	— — —	— — —	— — —	— 1 —	1 3 2	7 18 16	1938 1948 1949	Total groupe III		Danemark												
27 148 127	210 57 158	22 24 46	232 81 204	14 37 35	9 19 18	11 5 2	11 5 9	11 25 2	5 3 91	64 94 17	11 4 17	576 992 1145	89 204 166	6 10 17	54 274 234	23 142 169	50 169 166	130 165 143	352 964 895	928 1956 2040	1938 1948 1949	Total groupe III		Danemark											
31	66	1	67	1	2	3	—	—	—	6	2	313	5	—	8	3	2	22	335	549	1938	Danemark		Danemark											

		1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973
III. Mediterranean and Iberian Countries																																					
Italy	1938	31	1	—	—	32	17	7	7	26	57	5	6	2	5	8	26	3	7	5	2	17	3	7	5	2	19	43	27	3	94						
	1948	113	2	2	2	117	54	19	31	69	173	12	7	5	20	7	51	21	43	27	3	6	6	21	32	16	19	32	16	6	73						
	1949	130	2	2	2	134	65	25	25	58	173	16	8	4	11	5	44	19	32	16	6	7	3	7	1	3	3	1	3	3	7						
Greece	1938	8	—	—	—	8	3	2	1	1	7	5	—	—	—	—	1	1	7	1	—	—	1	2	1	3	1	3	2	7							
	1948	22	—	1	—	23	5	2	2	2	11	8	—	—	—	—	1	1	7	9	—	—	1	3	1	3	1	3	2	7							
	1949	21	—	1	—	22	11	2	1	3	17	8	—	—	—	—	1	1	7	9	—	—	1	3	1	3	1	3	2	7							
Spain	1938	20	—	1	—	21	5	2	3	1	11	7	—	—	1	—	8	—	—	—	—	—	—	—	—	—	—	—	—	1	25						
	1948	54	—	3	—	57	18	12	14	16	60	9	—	—	3	1	13	4	14	6	1	1	1	1	1	1	1	1	1	1	25						
	1949	60	—	2	—	62	41	14	11	13	79	8	—	—	4	1	14	9	13	7	1	1	1	1	1	1	1	1	1	30							
Portugal	1938	16	—	—	—	16	6	1	2	1	10	3	—	—	1	—	4	1	1	1	—	—	—	—	—	—	—	—	—	3							
	1948	30	—	1	—	31	7	5	13	3	28	4	—	—	3	1	1	7	1	1	—	—	—	—	—	—	—	—	7								
	1949	28	—	1	—	29	10	3	10	3	26	4	—	—	1	—	5	3	5	1	—	—	—	—	—	—	—	—	9								
Turkey	1938	4	—	—	—	4	4	2	2	1	9	12	2	1	—	—	1	16	1	1	1	1	1	1	1	1	1	1	4								
	1948	29	—	1	—	30	11	3	3	6	23	13	11	1	—	—	1	26	1	1	6	1	1	3	1	1	11										
	1949	30	—	—	—	30	13	9	4	4	30	5	19	1	—	—	1	26	1	1	4	1	1	2	1	1	8										
Other Mediterranean and Iberian countries	1938	1	—	—	—	1	—	1	—	—	1	3	1	—	—	—	—	4	—	—	—	—	—	—	—	—	4	4									
	1948	2	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4									
	1949	1	—	—	—	1	5	—	—	—	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4								
Total Group III	1938	80	1	1	82	35	15	15	30	95	30	8	8	3	6	10	65	6	9	8	4	27	17	9	5	31	31	31	114	89							
	1948	250	2	8	260	95	41	63	96	295	37	23	11	8	23	8	110	28	69	37	14	148	43	37	14	12	127	12	127	12	127						
	1949	270	2	6	278	145	53	51	81	330	25	35	10	8	13	7	98	32	57	26	12	127	407	407	407	388	388	388	388	388	388						
IV. Scandinavian Countries																																					
Denmark	1938	185	2	—	187	5	6	5	3	19	1	—	—	—	—	—	1	31	43	37	34	31	31	31	31	31	31	31	31	31	31	31	31				
	1948	168	5	1	174	24	13	50	20	107	20	1	4	4	1	1	31	36	33	20	20	114	89	89	89	89	89	89	89	89	89	89					
	1949	293	6	1	300	30	13	35	17	95	12	3	7	2	1	1	26	36	33	20	20	114	89	89	89	89	89	89	89	89	89	89					
Sweden	1938	113	1	2	116	15	17	14	3	49	10	2	1	1	2	1	16	22	31	22	22	75	75	75	75	75	75	75	75	75	75						
	1948	187	3	9	199	56	69	68	28	221	25	7	13	11	7	9	16	63	44	31	22	165	165	165	165	165	165	165	165	165	165						
	1949	186	2	9	197	48	56	54	15	173	33	11	9	7	9	9	16	69	52	106	106	183	183	183	183	183	183	183	183	183	183						
Norway	1938	54	1	—	55	14	6	6	1	27	6	—	2	4	4	—	12	9	18	3	30	30	30	30	30	30	30	30	30	30							
	1948	72	1	1	74	27	25	20	4	76	9	2	5	7	2	2	12	25	29	40	8	77	77	77	77	77	77	77	77	77	77						
	1949	77	1	1	79	26	16	12	3	57	8	2	7	3	1	1	21	28	38	5	71	71	71	71	71	71	71	71	71	71							
Finland	1938	81	—	1	82	6	8	6	—	20	4	1	—	—	1	—	6	6	9	2	17	17	17	17	17	17	17	17	17	17							
	1948	113	2	4	119	23	30	16	4	73	2	4	1	—	2	2	6	6	9	2	17	17	17	17	17	17	17	17	17	17							
	1949	103	2	6	111	18	27	16	1	62	6	4	2	—	2	2	14	26	20	14	14	5	5	5	5	5	5	5	5	5							
Total Group IV	1938	433	4	3	440	40	37	31	7	115	21	3	3	5	3	3	35	37	44	42	30	153															
	1948	540	11	15	566	130	137	154	56	477	56	14	14	25	25	25	25	130	106	88	144	50	388	388	388	388	388	388	388	388	388	388					
	1949	659	11	17	687	122	112	117	36	387	59	20	20	12	12	12	12	130	106	88	144	50	388	388	388	388	388	388	388	388	388	388					
V. Germany and Austria																																					
Germany	1938	135	2	7	144	88	165	89	83	425	121	35	31	16	50	1	254	81	107	50	33	271	271	271	271	271	271	271	271	271	271						
	1948	108	—	—	108	170	100	121	71	462	27	15	—	1	2	—	45	36	36	16	17	105	105	105	105	105	105	105	105	105	105						
	1949	127	—	2	129	243	113	118	73	547	62	14	4	2	11	—	93	35	76	27	14	152	152	152	152	152	152	152	152	152	152						
Austria	1938	8	—	—	8	5	4	2	8	19	20	4	1	—	2	—	27	1	3	1	1	6	6	6	6	6	6	6	6	6	6						
	1948	13	—	—	13	8	8	4	25	45	37	6	1	—	4	3	51	2	8	1	1	12	12	12	12	12	12	12	12	12	12						
	1949	13	—	—	13	10	12	6	13	41	56	6	1	—	5	—	36	29	47	15	18	109	109	109	109	109	109	109	109	109	109						
Total Group V	1938	143	2	7	152	93	169	91	91	444	141	39	32																								

III. Europe méditerranéenne et péninsule ibérique																				Danemark				
17	91	16	107	7	6	7	9	12	4	45	2	286	41	3	43	21	36	119	263	549	1938			
94	30	17	47	16	18	4	3	25	2	68	3	553	90	5	221	124	20	103	563	1116	1948			
73	89	28	117	15	14	1	6	25	2	63	17	621	71	5	189	148	20	85	518	1139	1949			
2	35	1	36	3	1	2	1	2	—	9	—	69	15	—	2	—	—	4	21	90	1938			
7	3	2	5	7	17	—	—	—	—	7	—	66	17	—	1	2	—	7	27	93	1948			
7	10	7	17	—	—	—	—	—	—	—	72	20	—	2	2	2	4	30	102	1949	Grèce			
1	33	—	33	—	—	—	—	—	—	4	78	9	1	4	1	7	1	23	101	1938	Espagne			
25	3	1	4	—	11	—	—	—	—	—	159	35	2	33	8	98	26	202	361	1948	Portugal			
30	10	1	11	—	—	—	—	—	—	—	196	22	1	32	8	97	24	184	380	1949	Portugal			
3	7	1	8	—	—	—	—	—	—	1	42	5	1	3	—	7	1	17	59	1938	Turquie			
7	3	—	3	1	—	—	—	—	—	1	78	18	1	17	5	51	2	94	172	1948	Autres pays du groupe			
9	4	—	4	1	—	—	—	—	—	1	74	16	2	9	5	46	2	80	154	1949	Autres pays du groupe			
4	44	4	48	4	2	2	1	—	1	10	4	95	19	1	2	—	4	27	122	1938	Total groupe III			
11	10	3	13	13	1	2	1	—	1	18	—	121	42	2	2	6	—	27	75	196	1948	Autres pays du groupe		
8	39	8	47	19	4	1	3	—	—	27	—	168	35	9	2	6	1	28	81	249	1949	Autres pays du groupe		
—	—	—	—	—	—	—	—	—	—	—	6	—	—	—	—	—	1	1	7	1938	Danemark			
4	8	1	9	—	—	—	—	—	—	—	15	2	—	—	—	1	—	3	18	1948	Autres pays du groupe			
6	6	2	8	—	—	—	—	—	—	—	14	2	—	—	—	2	—	2	16	1949	Autres pays du groupe			
27	210	22	232	14	9	11	11	14	5	64	11	576	89	6	54	23	50	130	352	928	1938	Total groupe III		
48	57	24	81	37	19	2	5	25	3	94	4	992	204	10	274	142	169	165	964	1956	1948	Autres pays du groupe		
27	158	46	204	35	18	2	9	25	2	91	17	1145	166	17	234	169	166	143	895	2040	1949	Autres pays du groupe		
31	66	1	67	1	2	3	—	2	1	—	6	2	313	5	—	8	3	2	4	22	335	1938	Danemark	
14	39	3	42	9	13	—	1	—	1	25	19	512	7	—	8	11	8	9	51	563	1948	Autres pays du groupe		
89	67	5	72	7	16	—	1	1	—	25	9	616	7	2	9	10	11	12	51	667	1949	Autres pays du groupe		
75	82	2	84	9	9	1	1	1	1	—	21	9	370	42	2	20	14	3	12	93	463	1938	Suède	
65	41	4	45	27	40	1	4	4	1	77	17	787	82	3	103	80	14	34	316	1103	1948	Autres pays du groupe		
83	83	5	88	26	31	1	5	6	1	70	21	801	60	3	86	68	13	41	271	1072	1949	Autres pays du groupe		
30	30	1	31	2	2	—	—	—	—	4	2	161	15	1	5	3	1	7	32	193	1938	Norvège		
77	28	3	31	9	12	—	1	—	—	22	19	324	32	1	16	41	3	15	108	432	1948	Autres pays du groupe		
71	29	4	33	13	13	—	1	1	—	28	20	309	27	1	15	31	3	15	92	401	1949	Autres pays du groupe		
17	27	—	27	—	1	—	—	—	—	1	2	155	17	—	3	3	—	3	26	181	1938	Finlande		
51	3	—	3	2	8	—	1	—	1	11	61	331	39	—	19	14	2	13	87	418	1948	Autres pays du groupe		
45	11	—	11	5	9	—	—	—	—	15	60	318	30	—	21	8	3	12	74	392	1949	Autres pays du groupe		
53	205	4	209	12	14	4	1	8	4	1	—	32	15	999	79	3	36	23	6	26	173	1172	1938	Total groupe IV
07	111	10	121	47	73	1	8	4	2	135	116	1954	160	12	146	146	27	71	562	2516	1948	Autres pays du groupe		
88	190	14	204	51	69	1	7	9	1	138	110	2044	124	6	131	117	30	80	488	2532	1949	Autres pays du groupe		
71	46	46	55	48	40	35	35	23	23	236	48	1424	63	10	214	120	41	151	599	2023	1938	Allemagne		
05	50	50	17	31	31	—	4	16	18	—	61	38	869	30	1	7	28	3	10	79	948	1948	Autres pays du groupe	
52	65	65	34	60	—	2	16	18	—	132	99	1217	46	5	32	58	13	25	179	1396	1949	Autres pays du groupe		
6	32	32	8	8	8	15	11	2	2	52	3	147	3	—	4	6	2	9	24	171	1938	Autriche		
12	14	14	15	3	2	7	10	2	39	—	174	10	—	5	5	—	5	25	199	1948	Autriche			
12	23	23	21	11	3	13	20	6	74	—	250	9	—	9	5	—	1	18	42	292	1949	Autriche		
77	32	46	78	63	56	48	50	46	25	288	51	1571	66	10	218	126	43	160	623	2194	1938	Total groupe V		
17	14	50	64	32	34	2	9	21	2	100	38	1043	40	1	12	33	3	15	104	1147	1948	Autres pays du groupe		
64	23	65	88	55	71	7	29	38	6	206	99	1467	55	5	41	63	14	43	221	1688	1949	Autres pays du groupe		
21	59	19	78	7	19	9	23	2	60	12	270	26	3	16	16	3	24	88	358	1938	Tchécoslovaquie			
56	25	31	56	53	24	22	52	15	166	120	597	23	5	27	46	7	44	152	749	1948	Autres pays du groupe			
56	40	36	76	50	35	28	18	18	149	196	608	18	6	49	62	10	53	198	806	1949	Autres pays du groupe			
24	44	11	55	8	2	2	1	3	16	2	190	13	—	9	4	2	5	33	223	1938	Pologne			
154	42	19	61	40	13	12	9	12	96	111	523	1	—	3	—	2	4	8	531	1948	Autres pays du groupe			
109	100	19	119	50	—	13	12	9	108	135	626	3	—	3	—	2	4	12	638	1949	Autres pays du groupe			
3	30	12	42	15	2	8	4	5	3	47	43	140	2	—	—	—	3	15	20	160	1938	Roumanie		
5	—	2	29	6	35	13	10	—	3	61	108	190	1	—	—	—	6	10	12	202	1949	Autres pays du groupe		
5	44	28	72	6	1	5	2	14	7	43	28	130	4	—	5	3	1	4	17	147	1938	Hongrie		
8	6	11	17	21	21	4	2	10	7	65	55	233	2	—	—	—	10	5	18	241	1949	Autres pays du groupe		
8	8	24	16	40	28	12	10	—	7	8	65	233	2	—	—	—	1	5	5	17	241	1949	Autres pays du groupe	
1	42	24	66	9	2	1	5	—	3	17	—	119	6	—	1	1	2	1	11	130	1938	Yougoslavie		
9	5	12	48	26	3	25	—	—	3	105	45	251	5	—	1	—	2	10	19	270	1948	Autres pays du groupe		
11	13	17	30	9	5	—	4	—	—	18	9	151	14	—	—	—	2	7	23	174	1949	Autres pays du groupe		
1	35	5	40	3	3	—	1	—	6	—	7	—	59	2	—	—	—	1	3	62	1938	Bulgarie		
2	2	3	5	7	15	12	1	8	—	27	42	83	3	—	—	—	4	7	90	105	1948	Autres pays du groupe		
—	3	4	7	15	12	1	8	—	36	50	99	2	—	—	—	—	4	4	6	105	1949	Autres pays du groupe		
55	254	99	353	41	15	27	25	31	8	147	14	908	53	3	31	24	11	50	172	1080	1938	Total groupe VI		
234	80	78	158	150	95	35	57	99	30	466	389	1716	34	5	30	56	18	71	214	1930	1948	Autres pays du groupe		
189	181	97	278	137	92	59	62	34	41	425	553	1907	40	6	52	67	16	78	259	2166	1949	Autres pays du groupe		
19	53	2	55	4	3	—	—	—	—	7	—	291	27	—	—	3	1	43	74	365	1938	U.R.S.S.		
102	61	—	61	117	118	32	25	34	83	409	—	744	78	—	4	7	1	43	133	877	1948	Autres pays du groupe		
63	122	—	122	202	225	80	50	5	100	662	—	941	42	—	—	27	—	8	77	1018	1949	Autres pays du groupe		
863	1136	196	1332	180	154	114	96	106	43	693	195	6912	565	151	658	1185	517	641						

Sources. — Research and Planning Division, Economic Commission for Europe. For details, see " Notes to the Statistics ", **Economic Bulletin for Europe**, Economic Commission for Europe, Vol. II, No. 2, pages 86 to 89

— = Nil or less than \$½ million.

.. = Not available.

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Note. — The figures shown in the table are the result of adjustments intended to reconcile the official data reported by both trade partners concerned. The figures do not, therefore, necessarily agree with official figures published by either the importing country or the exporting country. The principal adjustments are described in "Notes to the Statistics". For the definition of the country groups, see the reverse side of this sheet.

To facilitate the examination of the figures, the country headings are re-

Pour faciliter la consultation de ces chiffres, les noms des pays sont

Sources. — Division des études et des programmes de la Commission économique pour l'Europe. Pour les détails, voir les « Notes sur les statistiques », dans le *Bulletin économique pour l'Europe* de la Commission économique pour l'Europe, volume II, N° 2.

— = Néant ou moins d'un demi-million de dollars.
Chiffres non disponibles.

.. = Chiffre non disponible.

Note. — Les chiffres figurant dans ce tableau sont le résultat d'ajustements opérés pour mettre d'accord les renseignements officiellement fournis par les deux pays intéressés. Ces chiffres ne sont donc pas forcément conformes aux chiffres officiels publiés par le pays importateur ou par le pays exportateur. Les principaux ajustements opérés sont exposés dans les « Notes sur les statistiques ». Pour la définition des groupes de pays, voir le verso de la présente feuille.

are reproduced on a flap below, which can be moved up and down to the point required.

s sont reproduits sur le volet ci-dessous, qui peut être ramené à l'endroit voulu.

IV Germany	Austria	Total Group V Czechoslovakia	Poland	Rumania	Hungary	Yugoslavia	Bulgaria	Total Group VI U. S. S. R. (including Total Europe United States and dependencies)	United States and dependencies	Canada	Newfoundland	Latin American republics (including Overseas sterling area territories)	Dependent territories (excluding British colonies)	Other overseas countries	Total overseas countries	TOTAL WORLD	Year	↑ Exporting Countries
Germany	Austria	VI. Eastern European Countries	VII.	VIII.	IX.	X.	XI.	XII.	XIII.	XIV.	XV.	XVI.						

DEFINITION OF COUNTRY GROUPS

I. United Kingdom, Iceland and Ireland

United Kingdom :
 Channel Islands included
 Iceland
 Ireland

II. Western European industrial countries

France :
 Saar included in post-war years
 Netherlands
 Belgium-Luxembourg
 Switzerland :
 Liechtenstein included

III. Mediterranean and Iberian countries

Italy
 Greece :
 Dodecanese included
 Spain
 Portugal
 Turkey
 Other Mediterranean and Iberian countries :
 Malta and Gozo
 Gibraltar
 Albania
 Andorra
 Trieste

} included

IV. Scandinavian countries

Denmark :
 Faroe Islands included
 Sweden
 Norway :
 Svalbard included
 Finland

V. Germany and Austria

Germany :
 Saar included in 1938
 Austria

VI. Eastern European countries

Czechoslovakia
 Poland
 Rumania
 Hungary
 Yugoslavia
 Bulgaria

VII. U.S.S.R.

Estonia, Latvia and Lithuania included

VIII. Total, groups I to VII

IX. United States and dependencies

United States
 Alaska
 Caroline Islands
 Guam
 Hawaii
 Marianas Islands
 Marshall Islands
 Panama Canal Zone^a
 Puerto Rico
 Ryukyu Islands
 Samoa, American

Virgin Islands, including :

St. Thomas
 St. John
 St. Croix

X. Canada and Newfoundland

Canada
 Labrador
 Newfoundland

XI. Latin American republics

Argentina
 Bolivia
 Brazil
 Chile
 Colombia
 Costa Rica
 Cuba
 Dominican Republic
 Ecuador
 El Salvador
 Galapagos Island
 Guatemala
 Haiti
 Honduras
 Mexico
 Nicaragua
 Panama
 Paraguay
 Peru
 Uruguay
 Venezuela

^a Since practically no European trade statistics distinguish between Panama and Panama Canal Zone, it was decided, for purposes of consistency, to include the trade of the United States with Panama Canal Zone (although a United States dependency) under "Latin America".

DÉFINITION DES GROUPES DE PAYS

I. Royaume-Uni, Islande et Irlande

Royaume-Uni :

Îles anglo-normandes comprises

Islande

Irlande

II. Pays industriels de l'Europe occidentale

France :

Pour les années d'après guerre, territoire de la Sarre compris

Pays-Bas

Belgique-Luxembourg

Suisse :

Liechtenstein compris

III. Pays de la région méditerranéenne et de la péninsule ibérique

Italie

Grèce :

Dodécanèse compris

Espagne

Portugal

Turquie

Autres pays de la région méditerranéenne et de la péninsule ibérique :

Malte et Gozzo

Gibraltar

Albanie

Andorre

Trieste

compris

IV. Pays scandinaves

Danemark :

Îles Féroé comprises

Suède

Norvège :

Spitzberg compris

Finlande

V. Allemagne et Autriche

Allemagne :

Territoire de la Sarre compris pour 1938

Autriche

VI. Pays de l'Europe orientale

Tchécoslovaquie

Pologne

Roumanie

Hongrie

Yougoslavie

Bulgarie

VII. U.R.S.S.

Estonie, Lettonie et Lituanie comprises

Spitzberg compris

Finlande

VIII. Total, groupes I à VII

IX. Etats-Unis et territoires dépendants

Etats-Unis

Alaska

Îles Carolines

Guam

Hawaï

Îles Mariannes

Îles Marshall

Zone du Canal de Panama ^a

Porto-Rico

Îles Riou-Kiou

Samoa américain

Îles Vierges, y compris :

Saint-Thomas

Saint-Jean

Sainte-Croix

X. Canada et Terre-Neuve

Canada

Labrador

Terre-Neuve

XI. Républiques de l'Amérique latine

Argentine

Bolivie

Brésil

Chili

Colombie

Costa-Rica

Cuba

République Dominicaine

Equateur

Salvador

Îles Galapagos

Guatemala

Haïti

Honduras

Mexique

Nicaragua

Panama

Paraguay

Pérou

Uruguay

Venezuela

^a Etant donné que, pratiquement, aucune statistique commerciale européenne n'établit de distinction entre la République de Panama et la zone du Canal de Panama, il a été décidé, pour des raisons d'uniformité, d'inclure sous la rubrique « Amérique latine » les échanges commerciaux des Etats-Unis avec la zone du Canal de Panama (bien qu'il s'agisse là d'un territoire dépendant des Etats-Unis).

V. Germany and Austria

Germany :

Saar included in 1938

Austria

VI. Eastern European countries

Czechoslovakia

Poland

Rumania

Hungary

Yugoslavia

Bulgaria

VII. U.S.S.R.

Estonia, Latvia and Lithuania included

Galapagos Island

Guatemala

Haiti

Honduras

Mexico

Nicaragua

Panama

Paraguay

Peru

Uruguay

Venezuela

^a Since practically no European trade statistics distinguish between Panama and Panama Canal Zone, it was decided, for purposes of consistency, to include the trade of the United States with Panama Canal Zone (although a United States dependency) under "Latin America".

XII. Overseas sterling area (including British colonies)

Aden, Colony and Protectorate

Africa, South West

Australia

Bahamas

Bahrain

Barbados

Basutoland

Bechuanaland

Bermudas

Borneo, British :

North Borneo

Brunei

Sarawak

Burma

Cameroons (United Kingdom)

Ceylon :

Maldives Islands included

Cyprus

Falkland Islands

Fiji

Gambia

Gilbert and Ellice Islands

Gold Coast

Guiana, British

Hadhramaut

St. Helena :

Ascension

Tristan da Cunha

Honduras, British

Hong Kong

India

Indies, British West

Iraq

Jamaica

Kenya

Kuwait

Leeward Islands

Malaya, Federation of

Mauritius

Nauru

New Guinea

New Zealand

Nigeria

Norfolk Island

Nyasaland

Pakistan

Papua

Pitcairn

Qatar

Rhodesia, Northern

Rhodesia, Southern

Samoa, Western

Seychelles

Sierra Leone

Singapore

Socotra

Solomon Islands, British

Somaliland, British

Swaziland

Tanganyika

Togoland

Tonga

Trinidad and Tobago

Trucial Oman

Uganda

Union of South Africa

Windward Islands :

Dominica

Grenada

St. Lucia

St. Vincent

Zanzibar and Pemba

XIII. Dependent overseas territories (excluding British colonies)

Belgian :

Belgian Congo

Ruanda-Urundi

Condominium (United Kingdom and France) :

New Hebrides

Danish :

Greenland

Dutch :

Netherlands West Indies :

Netherlands Antilles

Curacao

Dutch Guiana (Surinam)

French (continued) :

French Oceania

New Caledonia

Algeria

French Equatorial Africa

French Somaliland

French West Africa

Dahomey

Dakar

French Guinea

French Sudan

Ivory Coast

Mauritania

Niger

Portuguese :

Macao

Portuguese India :

Goa

Portuguese Timor

Angola

Cape Verde Islands

Mozambique

Portuguese Guinea

Sao Thomé and Principe

Azores

Madeira

Spanish :

Spitzberg compris
Finlande

V. Allemagne et Autriche

Allemagne :

Territoire de la Sarre compris pour 1938
Autriche

VI. Pays de l'Europe orientale

Tchécoslovaquie
Pologne
Roumanie
Hongrie
Yougoslavie
Bulgarie

VII. U.R.S.S.

Estonie, Lettonie et Lituanie comprises

Guatemala
Haïti
Honduras
Mexique
Nicaragua
Panama
Paraguay
Pérou
Uruguay
Venezuela

^a Etant donné que, pratiquement, aucune statistique commerciale européenne n'établit de distinction entre la République de Panama et la zone du Canal de Panama, il a été décidé, pour des raisons d'uniformité, d'inclure sous la rubrique « Amérique latine » les échanges commerciaux des Etats-Unis avec la zone du Canal de Panama (bien qu'il s'agisse là d'un territoire dépendant des Etats-Unis).

XII. Zone sterling d'outre-mer (y compris les colonies britanniques)

Aden (colonie et protectorat)	Hadramaout	Papouasie
Afrique du sud-ouest	Sainte-Hélène :	Pitcairn
Antilles britanniques	Ile de l'Ascension	Rhodésie du Nord
Australie	Tristan da Cunha	Rhodésie du Sud
Iles Bahama	Honduras britannique	Iles Salomon britanniques
Bahrein	Hong-Kong	Samoa occidental
Barbade	Inde	Iles Seychelles
Basutoland	Irak	Sierra Leone
Bechuanaland	Jamaïque	Singapour
Bermudes	El Kattar	Socotra
Birmanie	Kenya	Côte britannique des Somalis
Bornéo britannique :	Koweit	Souaziland
Bornéo septentrional	Fédération des Etats malais	Tanganyika
Brunéi	Ile Maurice	Togo
Sarawak	Nauru	Iles Tonga
Cameroun (britannique)	Nigéria	Trinité et île de Tobago
Ceylan :	Ile Norfolk	Union Sud-Africaine
Iles Maldives comprises	Nouvelle-Guinée	Iles du Vent :
Chypre	Nouvelle-Zélande	Dominique
Côte de l'Or	Nyassaland	Grenade
Iles Falkland	Oman sous régime de traité	Sainte-Lucie
Fidji	Ouganda	Saint-Vincent
Gambie	Pakistan	Iles sous le Vent
Iles Gilbert et Ellice		Zanzibar et Pemba
Guyane britannique		

XIII. Territoires dépendants d'outre-mer (à l'exclusion des colonies britanniques)

Sous administration belge :

Congo belge
Ruanda-Urundi
Condominium (France et
Royaume-Uni) :
Nouvelles-Hébrides

Sous administration danoise :

Groenland

Sous administration espagnole :

Protectorat du Maroc

Possessions en Afrique du

Nord :

Alhucemas

Sous administration française

(suite) :
Etablissements français de l'Inde
Indochine
 Annam
 Cambodge
 Cochinchine

Laos

Tonkin

Océanie française

Nouvelle-Calédonie

Algérie

Afrique-Equatoriale française

Côte française des Somalis

Anciennes colonies italiennes :

Cyrénaïque
Erythrée
Libye
Somalie
Tripolitaine

Sous administration néerlandaise :

Indes occidentales néerlandaises :
 Antilles néerlandaises
 Curaçao
Guyane néerlandaise (Surinam)
Indonésie
Bornéo néerlandais
Nouvelle-Guinée néerlandaise

Germany :	Haiti
Saar included in 1938	Honduras
Austria	Mexico
Cyprus	Nicaragua
Falkland Islands	New Guinea
Fiji	New Zealand
Gambia	Nigeria
Gilbert and Ellice Islands	Norfolk Island
Gold Coast	Nyasaland
Guiana, British	Pakistan
	Papua
	Pitcairn
	Union of South Africa
	Windward Islands :
	Dominica
	Grenada
	St. Lucia
	St. Vincent
	Zanzibar and Pemba

XIII. Dependent overseas territories (excluding British colonies)

Belgian :	French (continued) :	Portuguese :
Belgian Congo	French Oceania	Macao
Ruanda-Urundi	New Caledonia	Portuguese India :
Condominium (United Kingdom and France) :	Algeria	Goa
New Hebrides	French Equatorial Africa	Portuguese Timor
Danish :	French Somaliland	Angola
Greenland	French West Africa	Cape Verde Islands
Dutch :	Dahomey	Mozambique
Netherlands West Indies :	Dakar	Portuguese Guinea
Netherlands Antilles	French Guinea	São Thomé and Príncipe
Curacao	French Sudan	Azores
Dutch Guiana (Surinam)	Ivory Coast	Madeira
Indonesia	Mauritania	
Dutch Borneo	Niger	Spanish :
Dutch New Guinea	Senegal	Moroccan Protectorate
Java	Upper Volta	Possessions in North Africa :
Sumatra	Madagascar	Alhucemas
French :	Morocco	Ceuta
St. Pierre and Miquelon	Réunion	Chafarinas
Guadeloupe	Tunisia	Melilla
Martinique	Cameroons (France)	Peñon de Vélez de la Gomera
French Guiana	Togoland (France)	Spanish Guinea :
French India	Kerguelen	Fernando Po
Indochina :	Former Italian :	Spanish Sahara :
Annam	Cyrenaica	Ifni
Cambodia	Eritrea	Rio de Oro
Cochin-China	Libya	Canary Islands
Laos	Somalia	
Tonkin	Tripolitania	

XIV. Other overseas countries

Afghanistan	Liberia
Bhutan	Mongolia
China :	Muscat and Oman
Formosa	Nepal
Manchuria	Philippines
Sinkiang	Saudi Arabia :
Tibet	Hedjaz and Négad
Egypt	Siam
Ethiopia	Sudan, Anglo-Egyptian
Iran	Syria
Israel	Tangier (International)
Japan	Trans-Jordan
Korea	
Lebanon	Yemen

Finlande

V. Allemagne et Autriche

Allemagne :

Territoire de la Sarre compris pour 1938

Chypre

Côte de l'Or

Iles Falkland

Fidji

Gambie

Iles Gilbert et Ellice

Guyane britannique

Ile Norfolk

Nouvelle-Guinée

Nouvelle-Zélande

Nyassaland

Oman sous régime de traité

Ouganda

Pakistan

Guatemala

Haïti

Honduras

Mexique

Nicaragua

Iles du Vent :

Dominique

Grenade

Sainte-Lucie

Saint-Vincent

Iles sous le Vent

Zanzibar et Pemba

XIII. Territoires dépendants d'outre-mer (à l'exclusion des colonies britanniques)

Sous administration belge :

Congo belge

Ruanda-Urundi

Condominium (France et

Royaume-Uni) :

Nouvelles-Hébrides

Sous administration danoise :

Groenland

Sous administration espagnole :

Protectorat du Maroc

Possessions en Afrique du

Nord :

Alhucemas

Ceuta

Chafarinas

Melilla

Peñon de Velez-de-la-
Gomera

Guinée espagnole :

Fernando-Po

Sahara espagnol :

Ifni

Rio-de-Oro

Iles Canaries

Sous administration française :

Saint-Pierre-et-Miquelon

Guadeloupe

Martinique

Guyane française

Sous administration française

(suite) :

Etablissements français de l'Inde

Indochine

Annam

Cambodge

Cochinchine

Laos

Tonkin

Océanie française

Nouvelle-Calédonie

Algérie

Afrique-Equatoriale française

Côte française des Somalis

Afrique-Occidentale française

Dahomey

Dakar

Guinée française

Soudan français

Côte d'Ivoire

Mauritanie

Niger

Sénégal

Haute-Volta

Madagascar

Maroc

Réunion

Tunisie

Cameroun (français)

Togo (français)

Kerguelen

Anciennes colonies italiennes :

Cyrénaïque

Erythrée

Libye

Somalie

Triполитaine

Sous administration néerlandaise :

Indes occidentales néerlandaises :

Antilles néerlandaises

Curaçao

Guyane néerlandaise (Surinam)

Indonésie

Bornéo néerlandais

Nouvelle-Guinée néerlandaise

Java

Sumatra

Sous administration portugaise :

Macao

Inde portugaise :

Goa

Timor portugais

Angola

Iles du Cap Vert

Mozambique

Guinée portugaise

Saint-Thomas et Ile du Prince

Açores

Madère

XIV. Autres pays d'outre-mer

Afghanistan

Bhoutan

Chine :

Formose

Mandchourie

Sin-Kiang

Thibet

Egypte

Ethiopie

Iran

Israël

Japon

Corée

Liban

Libéria

Mongolie

Mascate et Oman

Népal

Philippines

Arabie Séoudite :

Hedjaz et Nedjed

Siam

Soudan anglo-égyptien

Syrie

Tanger (territoire international)

Transjordanie

Yémen